ZAMBIA
Vulnerability
Assessment Committee

Zambia National Vulnerability Assessment Committee
in collaboration with the …
SADC FANR Vulnerability Assessment Committee

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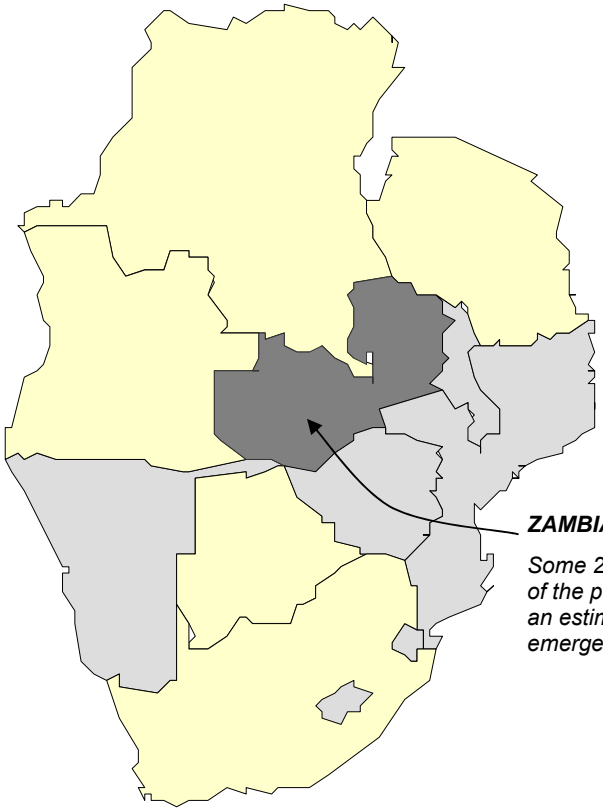
ZAMBIA
Emergency Food Security Assessment Report



16 September 2002
Lusaka

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PREFACE

This emergency food security assessment is regionally coordinated by the Southern Africa Development Community (SADC) Food, Agriculture, and Natural Resources (FANR) Vulnerability Assessment Committee (VAC), in collaboration with international partners (WFP, FEWS NET, SC(UK), CARE, FAO, UNICEF, and IFRC). National VACs in each country--a consortium of government, NGO, and UN agencies—coordinated the assessments locally. This is the first of a series of rolling food security assessments to be conducted in affected countries throughout the region for the duration of the current food crisis.

The VAC assessment strategy has two principal axes. First, it uses a sequential process of 'best-practices' in assessment and monitoring, drawn from the extensive and varied experience of the VAC partners, to meet a broad range of critical information needs at both the spatial and socio-economic targeting levels. The sequential nature of the approach not only provides richer details of the "access side" of the food security equation, but it adds the very important temporal dimension as well. From an operational (i.e. response) perspective, the latter is critical. Second, by approaching food security assessment through a coordinated, collaborative process, the strategy integrates the most influential assessment and response players into the ongoing effort, thereby gaining privileged access to national and agency datasets and expert technicians and increases the likelihood of consensus between national governments, implementing partners, and major donors. This 'partnering' strategy links the major players and stakeholders including regional institutions, national governments, response agencies, NGOs and donors for on-going, intensive 'rolling' assessment coverage of food security conditions on the ground.

ACKNOWLEDGEMENTS

The Zambia Vulnerability Assessment Committee (VAC) wishes to thank the following institutions for participating in the assessments:

- The Disaster Management and Mitigation Unit, Office of the Vice President
- The National Early Warning Unit, Ministry of Agriculture and Cooperatives
- The Meteorological Department,
- The Central Statistical Office
- The Central Board of Health
- The National Food and Nutrition Commission
- The World Food Programme (WFP)
- The Famine Early Warning Systems Network (FEWSNET)
- UNICEF
- Progamme Against Malnutrition (PAM)
- CARE International
- OXFAM
- World Vision International

The VAC wishes to express gratitude to the District officers accompanied the teams for fieldwork.
The VAC is grateful for financial support from the Zambia Government, SADC FANR and the World Food Programme and would like to particularly like to thank Regional VAC, WFP and FEWSnet for providing technical support to the assessment.

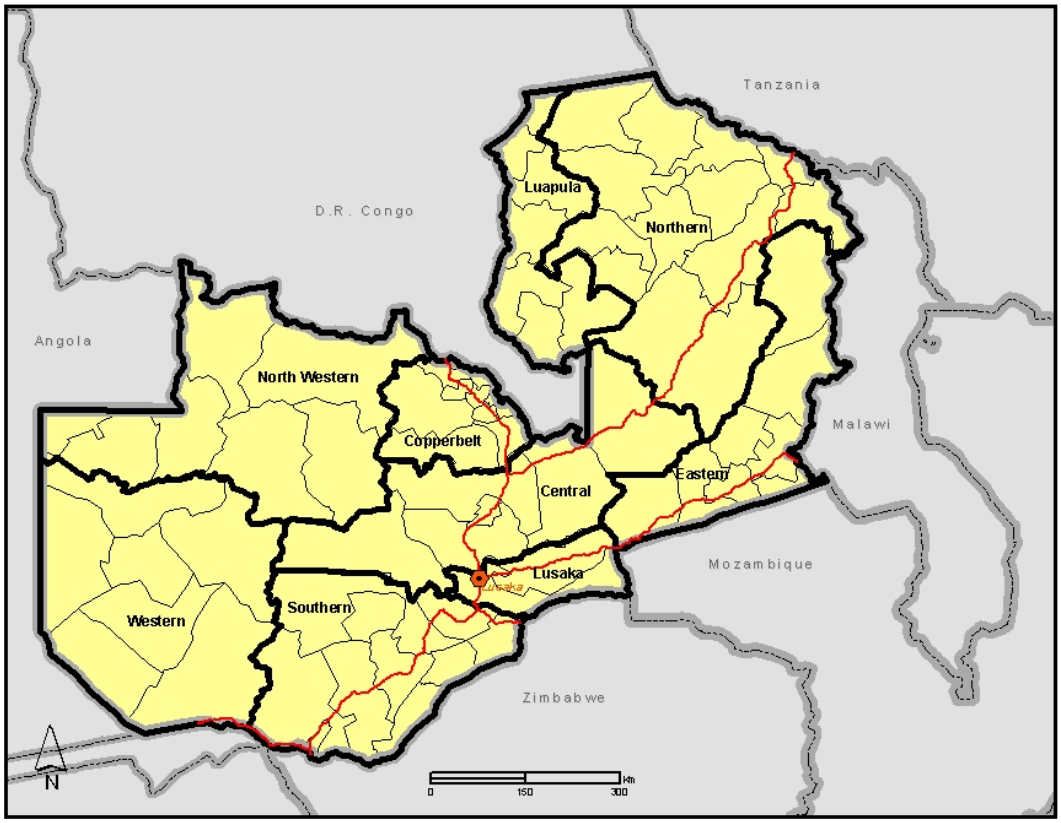
Lastly but not the least, the VAC wishes to thank participating households and the communities, who without their cooperation, the assessment would not have been conducted.

Acronyms

CFSAM	Crop and Food Supply Assessment Mission
CSO	The Central Statistical Office
DMMU	The Disaster Management and Mitigation Unit
EMOP	Emergency Operation
FAO	Food and Agricultural Organisation of the United Nations
FEWSNET	The Famine Early Warning Systems Network (FEWSNET)
GDP	Gross Domestic Product
GMO	Genetically Modified Organisms
HIPC	Highly Indebted Poor Country
MT	Metric Tonnes
NEWU	National Early Warning Unit
NGO	Non Government Organisation
OVC	Orphans and vulnerable children
PAM	Programme Agains Malnutrition
UNICEF	United Nations Childrens Fund
WFP	World Food Programme
WVI	World Vision International
VAC	Vulnerable Assessment Committee

Highlights

- The assessment confirms aggregate cereal production of 738,000 MT and a domestic cereal gap of 711,000 MT. Against a downward revision of commercial imports from 300,000 to 150,000 MT and a disrupted food aid pipeline, Zambia is likely to face an uncovered cereal gap of at least 439,000 MT.
- It is estimated that some 2.4 million people, including 87,000 orphans and vulnerable children in urban households will require food assistance for the period September to November 2002. This figure will swell to almost 2.9 million people by March 2003. The cumulative cereal food aid requirements for the period September to March 2003 are 224,200 MT.
- The worst affected areas are Southern Province and the valley districts where 90-100 percent of households have run out of food stocks. In addition, cereal prices are high and income earning opportunities are declining.
- Households with chronically ill people, less than four head of cattle, and female headed households have the largest per capita cereal gap, low food consumption levels and the highest proportion of people requiring food assistance.
- Coping strategies among female headed households frequently include reduction in food consumption, labour or asset sales.
- Market prices have increased rapidly and earlier than normal.
- More than 70 percent of households have no seeds. Emergency supply of seed is needed, particularly for small-scale farmers in the worst affected areas.
- The government of Zambia has banned the distribution and importation of GMO foods. This has disrupted the food aid pipeline for Zambia, and is likely to negatively affect the entire food aid response.



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Zambia National VAC

Provisional Findings from the August 2002 Emergency Food Needs Assessment

I. OVERVIEW

A. Brief context of the country and current situation

Prolonged drought has seriously affected cereal production in all but the northern parts of Zambia. All areas have experienced widespread cereal losses, the effect of which has been felt most severely by households in the southern and valley districts of Zambia. The reduction in the cereal production can potentially become a serious food crisis due to a combination of high levels of poverty, HIV/AIDS, chronic malnutrition and continued macro-economic decline.

Agriculture contributes to about 25 percent of the national GDP and provides employment to about 50 percent of the population. Zambia's poor macroeconomic performance is strongly linked to declining copper prices and low copper production. During the 1960s, at the time of independence, Zambia had emerged as one of the strongest economies in Sub- Saharan Africa, due primarily to the copper industry. However, today it is among the poorest. The decline in copper prices in the 1970s led to reductions in foreign earnings, with per capita income declining from US$ 650 in the mid1970s to US$290 in 1990, although some improvement was recorded in late 1990s to US$308. The continued heavy reliance on one major industry, copper and cobalt makes Zambia vulnerable to changes in world copper prices and copper production. Presently, the mining industry contributes about 65 percent of national foreign earnings. In 2002, Zambia is likely to face a large reduction in its foreign earnings as Anglo American Mining pulls out from the Konkola Copper Mines.

More than 70 percent of the population lives in poverty while chronic rates of malnutrition range from 54 to 59 percent. Zambia, along with neighboring countries in southern Africa, suffered two consecutive poor agricultural seasons in 2001 and 2002. In May 2002, FAO/WFP fielded a Crop and Food Supply Assessment Mission (CFSAM) to assess the food supply situation and estimate food aid needs.

B. Previous Core findings of the CFSAM

The CFSAM confirmed the adverse weather conditions and the low cereal production for the 2001/2 season and reported the following results:

- Estimated maize production was 606,000MT, 24 percent below the 2000/01 poor harvest and 42 percent lower than the five-year average.
- Anticipated cereal import requirements for the marketing year 2002/03 (May/April) was 626,000 MT, commercial imports of 351,000MT and a remaining deficit of 275,000MT to be covered by Government and external assistance.
- The estimated population in need of food aid assistance was 2.329 million with a food aid requirement of 174,383MT. Consecutive years of reduced harvest have seriously undermined the coping mechanisms of the rural population.
- The most affected area was Southern Province, where 60 percent of the population was estimated to be in need of relief food.
- Emergency supply of seeds (maize, sorghum, groundnuts) and hand tools to drought affected farming families is urgently required for the main planting season 2002/03.

C. Purpose of this assessment

Following the FAO/WFP CFSAM, WFP launched a regional appeal for 9.913 million people for six countries including Lesotho, Malawi, Mozambique, Swaziland, Zambia and Zimbabwe. For Zambia, WFP appealed for 1.75 million rather than the 2.329 million affected people, with the remaining balance to be delivered through a second pipeline by NGOs. The Zambia Emergency Operations (EMOP) is based upon the FAO/WFP Crop and Food Supply Mission of May 2002 as well as analysis by Government, FEWSNET and NGOs. A number of assumptions were made to estimate food aid needs through March 2003. These assumptions need to be evaluated to make adjustments in targeting and the amount of emergency assistance required. In addition, while the CFSAM identified the major geographical areas affected by the food crisis, not much analysis had been undertaken to provide information for targeting at the sub-national level or by socio economic groups.

The August assessment was conducted to achieve the following:

- Inform food aid distribution priorities at a sub-national level, by socio-economic groups and over time
- Re-assess food aid needs against new events and outcome of CFSAM assumptions. Key assumptions made by the CFSAM include the following:
    - Outcome of main harvests as projected by the Government crop assessment is similar to the FAO/WFP CFSAM;
    - Winter harvests due in August/September are similar to the CFSAM estimates;
    - Government policies allow private sector commercial imports and markets to function and enable effective humanitarian response;
    - Private sector commercial imports will be as estimated in the CFSAM;
    - Consumer price of maize and other key commodities will be affordable to non-beneficiary households;
    - A second pipeline through NGOs will provide the uncovered food aid needs for the vulnerable population
- Inform and guide on-going food security monitoring;
- Provide feedback on emergency response to date

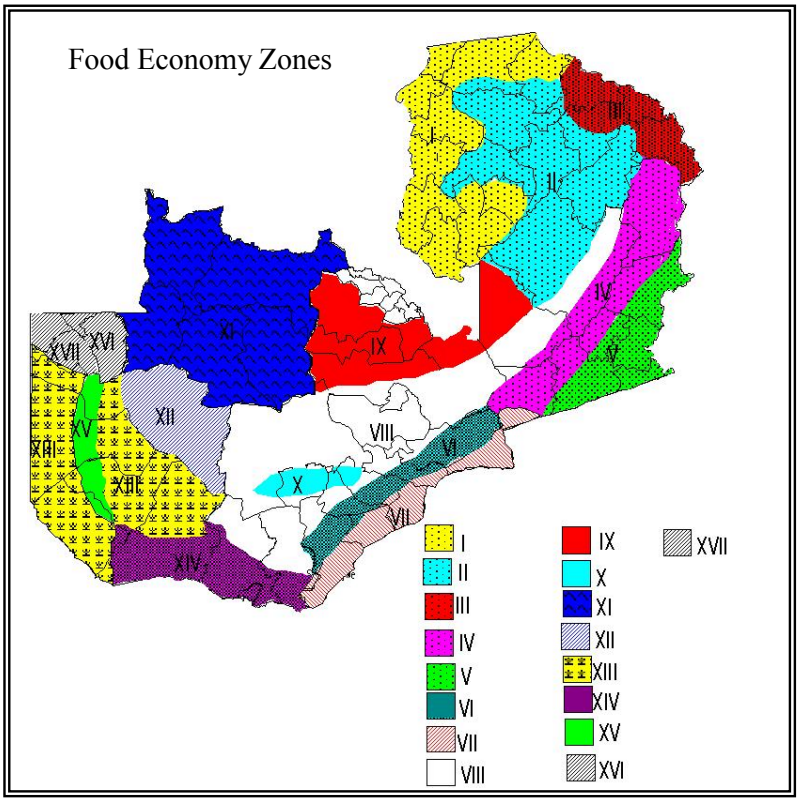
D. Overview of Methods for this assessment

Food Economy Zoning

The initial step in the community vulnerability assessment was to conduct a workshop in order to identify food economy zones (FEZ) within Zambia.[1] Participants in the three-day workshop included representatives of the national Vulnerability Assessment Committee. The approach used is to identify the main factors (climate, soil, proximity to market) that determine the basic food and income options (the crops that will grow, the livestock that can be raised, the natural resources that exist) and then to group similar areas together. This was done using a combination of secondary source material (agro-ecological maps, vegetation maps, relief maps, etc.) and by drawing on expertise and local knowledge of the workshop participants. The final output of the workshop was a preliminary food economy/livelihood zoning map, used as a sampling frame from which areas to be visited in the assessment were selected. A total of 21 food economy zones were identified (see Map 1).

[1] A food economy (or 'livelihood') zone is defined as an area within which households share similar options for accessing food and income.

Map 1



Selection of villages

Given the limited resources available for this assessment, it was not possible to cover the entire country. Rather, only 17 out of 21 FEZs were sampled. Food economy zones in the north of the country were not covered, as previous assessments and field reports indicated there were no serious food security problems. As a result, Luapula Province and parts of Northern and North Western Province were omitted from the assessment.

Within each FEZ, three sites were selected, and in most cases one site per district with a total of 20 out of 47 rural districts covered. Prior to fieldwork, the VAC selected zones to be included in the assessment; the actual selection of villages depended on the information provided by District level key informants. At the District level, the first point of contact was the District Agricultural Coordiating Officer (DACO,) who assembled members of the Disaster Committee (comprising government and NGOs involved in food distribution at this level). District level discussions were used to verify the livelihood-zoning map and to select villages typical of the livelihood zone. The aim was to obtain good spatial coverage of each zone and to visit villages considered reasonably 'typical' of the zone as a whole.

Selection of community representatives

At the village level, the first step was for teams to conduct community level interviews. The village chief or headman was asked to assemble between six and eight key informants for interview. Participants were chosen to represent a cross section of the community. These normally included the village headman/head woman, a teacher, a health worker, and representatives from women's groups, farmers and traders. The main purpose of these interviews was to select households for further in depth interview. In order to do so, it was necessary to gain an initial understanding of the main characteristics of four major socio-economic groups (well off, middle, poor and very poor) and

the links between such groups. Discussions at this level also enabled teams to ascertain details of the causes of the current food crisis.

Selection of households

As indicated above, one of the objectives of the community interview was to develop a village based definition of the different socio-economic groups within the village. At the end of this interview participants were asked to identify villagers from selected socio-economic groups to take part in the next level of interview; the household interview. In each village, a total of 20 household interviews were conducted with a total of 660 households interviewed in 33 sites. The proportion of households selected in each socio economic group reflected the community as a whole, as exemplified in the following table.

Sampling Proportions by Wealth Group		
Socio economic group	Proportion of community	Number of households interviewed
Well off	10	2
Middle	20	4
Poor	55	11
Very poor	15	3

Nutrition assessment

Collection of nutritional information took place while community level interviews were conducted. With the assistance of a village health worker, the team nutritionist assembled children under 5 and their caregivers in order to collect anthropometric measurements. The nutritionist measured between 30 children per village. A total of 960 children under the age of five were measured.

Instruments and Techniques

Four instruments were utilized to collect the data: the district, community, household and nutrition questionnaire. Prior to going into the field, questionnaires were tested and revised. Revision and testing of the instruments also served as training.

Analytical Steps Leading to Final Numeric Results

Food economy zones were used to stratify the country to enable sampling. Within each zone three sites were visited. The estimated population in need of assistance within each zone was calculated based upon the average of three sites. To estimate the population in need of assistance at the district level, the population within a zone for each district was estimated. The distribution of the population in each zone per district was used as weighting factor for estimating the number of people requiring food assistance by district.

E. Key Findings

- The food security situation in Zambia is precarious and deteriorating particularly in the southern Zambia and the valley districts as many households run out of cereal stocks. Cereal prices are rapidly increasing and there are very little cash earning opportunities available through labor or asset sales.

- The estimated number of people requiring food will increase to 2.896 million people at the peak of the hunger period, November-March 2003. An estimated 87,000 orphans and vulnerable children (OVC) in urban households will need assistance.

- This figure represents an increase of areas that do not have adequate household cereal stocks, assets and income to meet their food needs and therefore are in need of food aid assistance for

Estimated Number of people in need of Food Aid Assistance and MT of Cereals.			
	AUGUST VAC ESTIMATE		
	MAX # PEOPLE IN NEED	MAX % TOTAL POPULATION IN NEED	CUMULATIVE MT CEREAL FOOD AID
Sept 1-Nov 30	2,365,000	20	85,200
Dec 1-Mar 31	2,896,000	26	139,000
Total: Sept-Mar	***2,896,000***	***26***	***224,200***

the period between September 2002 and March 2003.

Key factors that will affect food security of rural households in Zambia include the following:

- Private sector ability to import cereal. To date there are indications that the millers will only import about 150,000MT out of the initial plan of 300,000MT.
- The Government's ability to import 100,000 MT as a contingency measure. As of August, the Government has provided funding enough to purchase only about 11,000MT.
- The ban on the importation of GMO foods has disrupted the food pipeline for Zambia, and is likely to affect the entire food aid distribution
- The ability of the Government to receive donations of non-GMO donated foods.
- Prices

II. MACRO PROCESS AND TRENDS

F. Final Government Crop Assessments Findings and Differences from the CFSAM

The final Government Crop Forecasts show cereal production to be 738,000 MT (not yet published). This estimate is very similar to the FAO/WFP Crop and Food Supply estimate of 744,000 MT.

Table 2 shows cereal production estimates by province for the CFSAM and Government. Although little variation exists between the Government figures and the CSFAM, differences exist at the provincal level. Of particular concern is southern province, which has a significant lower production of 30,000 MT than the FAO/WFP estimate.

Table 2. Crop Estimates Compared

	FAO/WFP Crop and Food Supply Assessment Mission Estimate in MT, Apr/May 2002			Government Final Forecast Survey – Preliminary Results in MT, June 2002			Difference between CFSAM and Government Final Forecast in MT		
Province	**Maize**	**Millet, Sorghum and Rice**	**Total**	**Maize**	**Millet, Sorghum, Rice**	**Total**	**Maize**	**Millet, Sorghum, Rice**	**Total**
Central	128,175	6162	134,337	130,655	6074	136,729	2,480	-88	2,392
Eastern	193,954	4965	198,919	202,385	4583	206,968	8,431	-382	8,049
Copperbelt	56,711	4789	61,500	64,300	4453	68,753	7,589	-336	7,253
Lusaka	51,642	111	51,753	48,355	76	48,431	-3,287	-35	-3,322
Luapula	15,308	6843	22,151	15,714	4609	20,323	406	-2,234	-1,828
Northern	31,590	33471	65,061	38,022	30815	68,837	6,432	-2,656	3,776
N/Western	19,582	4092	23,674	19,525	3927	23,452	-57	-165	-222
Southern	92,749	1490	94,239	63,093	1181	64,274	-29,656	-309	-29,965
Western	16,461	4410	20,871	19,558	10102	29,660	3,097	5,692	8,789
Zambia	**606,172**	**66333**	**672,505**	**601,607**	**65820**	**667,427**	**-4,565**	**-513**	**-5,078**

Source: FAO/WFP CFSAM Report and Zambia Food Security Research Project Crop Forecasting Survey

According to the assessment in May 2002, domestic production was estimated at 744,000 MT with opening stocks held by the millers estimated at 23,000 MT with total availability of 767,000 MT. Against the national requirement of 1,393,000 MT for cereal, the domestic cereal gap was estimated at 626,000 MT. Anticipated commercial imports in May 2002 was 351,000 MT and food aid of 275,000.

As of August, the total cereal availability is estimated at 761,000 MT. The decline is due to the revised maize production in the final crop forecasts. Wheat estimates have remained at 70,000 MT. The SADC estimates show a higher cereal consumption of 1,445,000 MT against the CFSAM consumption estimate of 1,370,000 MT. The SADC estimates shows a higher domestics cereal

gap of 711,000 MT. Commercial imports between May and August 2002 are estimated at 42,500MT. Food aid received between May 2002 and August is estimated to be 16,300 MT. The national cereal gap for the 2002/03 marketing year is more than twice the cereal gap compared to the five-year average of 311,000 MT. Expected commercial imports have been revised from 351,000 to 150,000 thus leaving an unfilled cereal deficit of 341,000 MT. This cereal gap is expected to increase due to the recent ban on importation of GMO maize (see discussion on Government policy and Food aid Response to date).

Table 3: ZAMBIA Cereal Balance Sheet (May 2002 - April 2003 Marketing Year)

	May 2002[1]	August 2002[2]	5-Year Average[3]
Opening Stocks	23,000	23,000	95,000
Domestic Production	744,000	738,000	1,095,000
TOTAL AVAILABILITY	**767,000**	**761,000**	**1,190,000**
Domestic Requirements	1,370,000	1,445,000	1,467,000
Planned Exports	10,000	10,000	14,000
Desired Closing Stocks	13,000	17,000	20,000
TOTAL REQUIREMENTS	**1,393,000**	**1,472,000**	**1,501,000**
DOMESTIC CEREAL GAP	**-626,000**	**-711,000**	**-311,000**
Commercial Imports Received	0	43,000	111,000
Food Aid Received	0	16,000	2,000
TOTAL IMPORTS RECEIVED	**0**	**59,000**	**113,000**
Commercial Imports Expected	351,000	150,000	0
Food Aid Expected	275,000	162,000	0
TOTAL IMPORTS EXPECTED	**626,000**	**312,000**	**0**
TOTAL IMPORTS	**626,000**	**370,000**	**113,000**
UNFILLED CEREAL GAP	**0**	**-341,000**	**-198,000**

1. FAO/WFP Crop and Food Supply Assessment Mission estimate.
2. SADC Regional Early Warning Unit estimate, based on government figures.
3. SADC Regional Early Warning Unit

G. General conditions for the winter cropping season

The main winter crop traditionally has been wheat, which is grown by the commercial sector. The Zambia National Farmers Union estimates wheat harvest to be 70,000 MT for the 2002 crop. This figure is similar to the FAO/WFP wheat estimate of 75,000 MT.

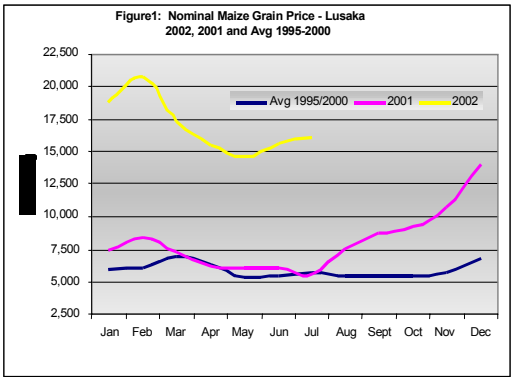
The contribution of winter maize to the 2002/3 cereal supply will be negligible. In 2002, about 1640 hectares of winter maize was planted with an anticipated production of 8-10,000 MT. This is the first time winter maize has been grown off-season by the commercial sector for milling into flour. Off-season maize is normally grown by the commercial sector on a small scale and is sold as green maize. The small-scale sector households who have access to wetlands or river plains traditionally practice winter cropping. However, production estimates have never been made for off-season maize production and therefore little information exists on the contribution of winter crops to household food security of small-scale farmers. The assessment found less than one percent of small-scale households in the rural areas planted winter maize this year.

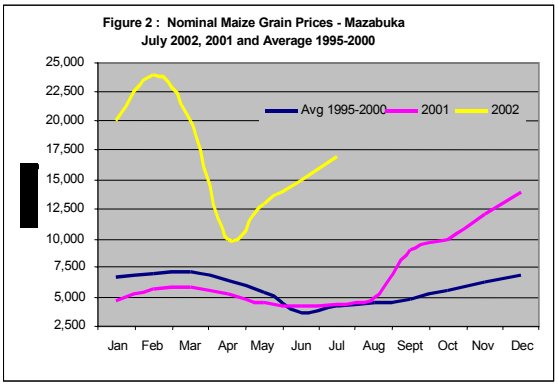
H. Market Prices of Maize, livestock and other key commodities

Reports from the Agricultural Commodity Exchange (ACE) during the first week of August indicate a drop in maize demand by buyers, indicating a satisfied medium term demand by the millers.

Maize prices have started to increase earlier than usual in many districts, which is an indication that stocks are running out earlier than usual in the districts. Out of 38 district markets where grain

prices are monitored, 66 percent of them showed increasing prices since June. In comparison, the maize grain prices in July 2002, 2001, and five year average shows higher maize prices in 2002. As shown in figures 1 and 2, prices started to increase in June 2002 compared to August 2001, a year considered low crop production. The rate of increase in prices in 2002 is steeper than last year and the 1995-2000 average. The early increase in prices is an indication that stocks are running out earlier than usual and that the shortages are likely to be more acute than last year.





The rapid and early increase in maize prices is eroding the ability of households to meet their food needs through purchases. In many rural areas, little opportunities exist for employment. In the worst affected areas, many households do own livestock and have very little assets to sell to enable them to cope with the loss of harvest. In the worst affected areas, the decline in the price of livestock has further reduced the ability to rely on sale of livestock to purchase food.

I. Food Imports: Government, Commercial and Food Aid

The April/May 2002 FAO/WFP CFSAM estimated commercial imports of cereals of 300,000 MT by private traders and Government imports of 100,000 MT. The Government of Zambia signed a Memorandum of Understanding (MOU) with the Millers Association of Zambia on 2 June 2002 for the importation and supply of maize to cover the shortfall in the country. The MOU allows millers under the programme to have access to foreign exchange for the importation of maize. According to the MOU, the Government of Zambia will waive import duty for maize bought under the Government programme. The Agreement further stipulates that the GOZ will import 100,000 MT of maize to be kept as strategic reserve to be released on the market after consultation with the Zambia National Farmers Union. The trigger for maize sales by Government is when there is an exceptionally high increase in maize prices.

As of 12 August 2002, millers revised their cereal import requirement and are now only willing to import about 150,000 MT out of the initial plan of 300,000 MT. By 30 August, millers had signed contracts to purchase 120,000 MT. Additional 30,000 will be contracted soon. There are discussions within Government to import 100,000 MT of maize. However, as of August 30, there was no confirmation from the Government as to whether contractors had been identified or a budget allocated for the Government cereal imports. Because the sourcing for Government imported maize is staring late, it may be difficult to find maize in nearby markets as several countries in the region that have large deficits are competing to purchase from the same markets. In this case, the Government imports may not arrive before January/February 2003.

The Government of Zambia has banned maize exports during the 2002/03 consumption year. This has reduced the demand of maize by the Copperbelt millers who traditionally export maize to the Democratic Republic of Congo (DRC). Unofficial importations of maize from Mozambique and Tanzania through the borders in Northern Province and Eastern province have improved the maize supply in Zambia, particularly for theses two provinces.

J. Key Government Actions and Policies

The Government of Zambia declared a national disaster on food security on 29 May 2002. The GOZ has a standing budget line of K 5 billion for emergency operation to be implemented by the Disaster Management and Mitigation Unit (DMMU). In 2002, the GOZ increased the allocation to DMMU to K15 billion as part of the Highly Indebted Poor Country programme (HIPC) arrangements. The Government disaster fund will be used to support vulnerable populations in areas not covered by the EMOP supported through WFP.

The GOZ allocated K12 billion (US2, 600,000) to the Food Reserve Agency (FRA) for the purchase of maize locally. The expected amount of purchase from this allocation is 11,000 MT of maize. As of August 2002 the Government has disbursed K6 billion to the FRA and 3,000 MT has been bought so far.

The Government is putting in place a fertilizer subsidy programme targeted to 120,000 small-scale farmers through farmer groups for the 2002/03 agricultural season. The initial target was 200,000 farmers but had to be scaled down because the World Bank loan facility for the fertilizer programme did not materialize. According to the Ministry of Agriculture, farmers will be expected to meet 50 percent of the cost of the fertilizer at the time of purchase and the rest to be paid through the Government subsidy programme. The Government has put out an open tender for the supply of 48,000 MT of fertilizer for the programme. About 14,000 MT of fertilizer is presently available in country with the private sector.

The Government has allocated about K20 billion to the Nitrogen Chemicals Zambia (NCZ) for operation and the manufacture of fertilizer. NCZ had been dormant for several years and was only operating to produce small quantities of fertilizer at a time. The injection of funding by the Government is intended to increase the production capacity of the fertilizer plant. According to the Ministry of Agriculture and Cooperatives (MACO), NCZ expects to produce about 24,000MT of fertilizer for the 2002/3 agricultural season. So far, NCZ has produced 10,000MT of basal dressing. However, the level of funding from the GOZ to the Nitrogen Chemical of Zambia is unlikely to be sustainable over a long-term. The Ministry of Agriculture estimates that total fertilizer requirement for Zambia is between 80,000MT to 120,000MT. .

Following the 12th August Government consultative meeting on genetically modified organisms (GMO), the Government has announced that it will not accept GMO because it does not have full knowledge of short and long-term effects of the consumption of GMO. According to the Government, the decision to reject GMO is a precautionary measure out of consumer welfare and environmental concerns. The Government has called for donor assistance to procure non-GMO cereals. The Government has further requested WFP to withdraw all GMO maize and has withdrawn WFP import permits. According to the Government, import permits will only be reissued upon certification that food brought in by WFP is GMO free. The decision over GMO will significantly affect the pipeline and food aid distribution programme in Zambia.

As of August 28, the European Commission (EC) issued a press release to clarify some of the misconceptions regarding GMO food to help the Government reach an informed decision. According to the press release, the EC accepts imports of authorized varieties of GMO for human consumption in the EU and is willing to provide funds to WFP and other agencies for the purchase of maize locally or regionally. The EC has further noted that it may be difficult to find adequate quantities of non-GM maize in the region to address the urgent food shortages in the country and the region as whole.

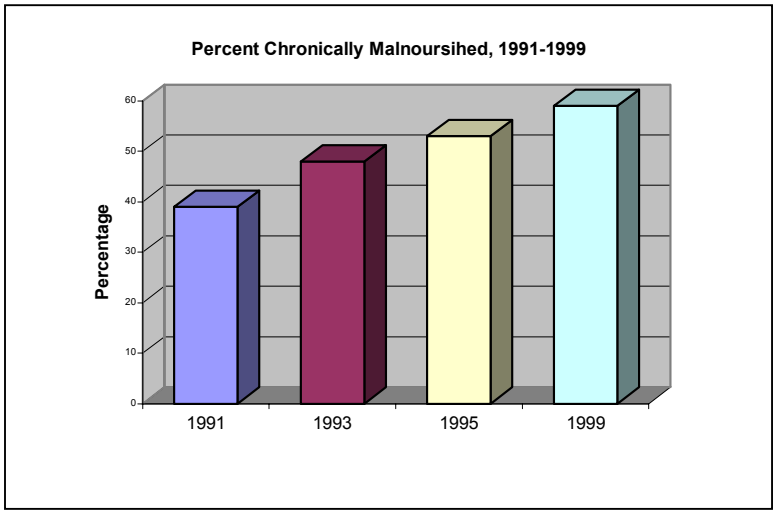
III. Community Vulnerability Assessment and Emergency Food Aid Needs

A. National Overview

Nutrition Indicators: national and district

Zambia is one of the few sub-Saharan African countries that has failed to achieve reductions in child malnutrition. Instead, chronic malnutrition for children of 6-59 months is high and has increased from 39 percent in 1991 to 59 percent in 1999. The underlying causes of increased chronic malnutrition in Zambia have been attributed to a complex combination of care practices, inadequate food intake, poor environmental conditions and poor health conditions/status. Wasting rates have essentially remained stable, ranging from the 7 percent in 1991 to 5 percent in 1999.

Analysis of nutrition data show significant increases in chronic malnutrition rates for Southern Province for two consecutive periods, 1991 -1993 and 1993-1996 compared to other provinces which showed a significant increase for one period, 1991-1993. These periods, 1991-1996, are associated with the recurrent droughts of the 1990s, which affected Southern Province the most. Southern Province has continued to receive relatively dry weather and has had one of the largest reductions in crop production.



The August assessment conducted anthropometric measurement in 946 children less than five years of age. The results show that 4.4 percent of children had acute malnutrition. Other recent nutrition assessments conducted by the NGOs in collaboration with UNICEF in various areas of Zambia have found similar acute malnutrition rates of less than five percent. The World Vision International nutrition assessment of Sinazongwe recorded wasting rates of 4.4 percent.

Analysis of VAC nutrition assessment shows no clear link between levels of acute malnutrition and food insecurity. However, results indicate a relationship between recent illnesses of diarrhea and acute malnutrition two weeks prior to the assessment. Higher rates (5.5%) of acute malnutrition were recorded for children that had fever than children without a fever (3.4%). It is important to point out that the linkage between household food security and nutrition was undertaken at the community level rather than at individual level and therefore sensitivity may have been lost due to aggregation.

Table 4 : Rates Malnutrition in Children below five years, August 2002

Type of malnutrition	Global	Severe
Acute Malnutrition	4.4%	1.1%
Underweight	22.1%	4.5%
Chronic malnutrition	39.9%	15.6%

Although acute malnutrition rates have remained stable for children under five, enumerators returned with reports of low body weight in adults, particularly of mothers. It appears that mothers are foregoing food to enable their children to have enough to eat. However, the extent to which these reports are true cannot be substantiated as no adult anthropometry was taken.

Incidences of pellagra and oedema have been reported in Zambia. However, at the time of the assessment, a picture of a woman with severe pellagra and another of a child with severe

kwashiorkor and oedema were circulating. No systematic collection of information on pellagra has been made.

B. HIV/AIDS

Surveillance data from antenatal clinics show HIV/AIDS for 15-49 years range from 11 percent to 31 percent. Highest rates of infections of 20-30 percent were recorded in urban areas of the Copperbelt, Lusaka and Livingstone. Among the rural areas, highest prevalence rates are in Western province, followed by Eastern province (see Map).

This assessment asked respondents whether there was a chronically ill person in the household. About 23 percent of households reported the presence of a chronically ill member but very few (2%) households mentioned HIV/AIDS as the cause of illness. About 14 percent of those reporting mentioned TB as the cause of illness. Some of the sampled communities had a particularly high proportion of households with chronically ill people, with up to one out of two households reporting a household member suffering from a chronic illness and others had very low proportions of household members reporting a chronic illness. Chronic illness was particularly high (30-50 percent with an ill member) in areas along the line of rail and near urban areas, particularly in Southern Province, the Valley areas, zone 10 and 13. These results are consistent with the recent findings of the Demographic Health Survey (2000) that found that while some communities may have low or no HIV/AIDS infection rates, others have very high rates with almost all adults of 15-49 years infected.

The loss of crop production and the increasing costs of food further erode the capacity of households to meet their food needs. Households that have a chronically ill member have competing demands on time between productive activities and providing care to the ill and also between health care and food costs, thus making it difficult for households to meet the various basic needs.

Results of the assessment showed that among the households with chronically ill people, 92 percent of those ill are adults. Households with chronically ill members were the most food insecure. As of August, about 42 percent of households with chronically ill people had already run out of food compared to 27 percent of households with no ill members. By March 2003, 78 percent of households with chronically ill members will need food aid compared to 68 percent of households with no chronically ill members.

C. Orphans and vulnerable Children in urban areas.

Zambia has one of the highest rates of orphaned children in the world. A CSO survey of 1996 estimated that 13 percent of children in Zambia are orphans. About 64 percent of orphaned children have lost their father while 22 percent have lost their mother and 14 percent have lost both parents. One recent estimate shows high and alarming levels of orphans, estimated at 1.656 million children. According to this estimate, more than one-third of children under the age of 15 are orphans who have lost one or both parents. Less than one quarter of the orphans have lost their parent to other forms of sickness or accidents, while more than three-quarters are orphans because of AIDS.

The problem of orphans is increasing rapidly. In a period of two years, between 1996 and 1998, the number of orphans increased by over fifteen percent. The worst hit province is Southern Province, where there was a thirty percent increase. This rapid growth in the scale of the problem of orphans means that Zambia will likely retain its position as one of the most heavily orphaned countries in the world with the proportion of orphaned children rising to more than 38 percent.

At the national level, about three out of four children live below the poverty line. Because of high poverty levels in Zambia, little difference exists between the socio-economic situation of children that are orphaned and those that are not; 75 percent of children live below the poverty line compared to 73 percent children that are not orphaned. About 38 percent of double-orphaned children

are looked after by their grandparents. Orphaned children have higher rates of malnutrition; 56 percent of orphaned children are stunted compared to 49 percent for those not orphaned.

Many NGOs are working with orphaned children, providing services ranging from education support, empowering the community through training, providing micro-credit, health education and care, etc. However, because of the magnitude of the problem, many communities visited indicated that the assistance was not adequate and in most cased not evident

A separate assessment was conducted in four urban areas, Lusaka, Chipata, Ndola and Livingstone to determine the needs of orphans and vulnerable children. Interviews conducted at the community, household and institutional levels estimate a total of 97,000 orphaned and vulnerable children in urban households are in need of assistance. These children are in households with no employment or any sizeable income. The increasing food prices due to the low crop production is further increasing the burden of households to take care OVC.

D. Issues of Availability

Cereal production in the affected areas was low, with over 26.3 percent of households reporting no cereal harvest. In the worst affected areas, mainly Southern Province and the valley areas, 95 percent of households reported having no cereal stocks at the time of the visit. About 52 percent of households had no cereal stocks and only 17 percent had more than five 50 kg bags of cereals for household consumption. This amount of cereal is unlikely to last to November 2002 for a household of about 5 people.

Availability of cereals is a problem for most of the communities. About 50 percent of the communities surveyed indicated that cereals were not available for purchase. In the Southern Province districts where the situation is acute; up to 70 percent of households reported non-availability of cereals on the market. The situation in the valley areas was similar, where over 50 percent of the households reported non-availability of cereals. This means that even those with money would not be able to access cereal.

Cassava cultivation has enabled households to maintain a basic level of household food security, which is not the case in areas where cassava is not grown. In cassava growing areas, 34 to 79 percent had no staple stocks. In contrast, up to 100 percent of households in cereal growing areas had no staple stocks. The total proportion of households requiring assistance between September 2002 and March 2003 rises when cassava cultivation is not taken into account. In one area, 51 percent of households with fewer than 6 cattle or 11 goats require assistance in the specified time frame. When cassava cultivation is discounted, the proportion rises to 68 percent, an increase of 17 percent. Although the rates of increase may not be quite so steep, the same principle applies to households across the other zones

E. Issues of Access

Link to market prices

The notion that most rural households are able to produce enough food (either maize or cassava) in a 'normal' year to cover their annual needs is unfounded. Without exception, households reported that they would, at some point during the year, purchase cereals for consumption. This year, household food stocks have been depleted earlier than usual, thereby forcing households to begin purchasing maize earlier than usual. This reliance on the market means that the sharp increase in maize prices (shown in Figure 1) witnessed over recent months has put increasing pressure on already limited household resources.[2] The price hikes are partly related to basic economic principles of supply and demand, but it is worth remembering that the average annual inflation rate of 20.9% must also have played some part.

[2] Prices indicated are taken from village markets.

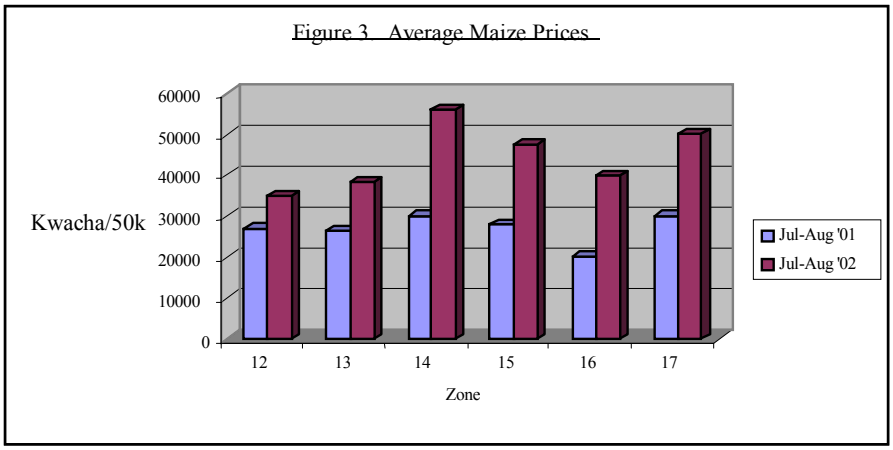


Figure 3 shows that, in some areas, the price of a 50kg bag of maize has almost doubled in the past year. These sharp price increases have meant that the ability of households to purchase maize grain in large quantities (i.e, 50kg bag or more) has been eroded. Instead, it is common for households to purchase small quantities (20 Litre tin or less) as and when they have the available cash.

Discussion with cereal traders in Kaoma, Livingstone and Senanga found that, not surprisingly, the quantity of maize grain available for purchase from farmers is considerably lower this year, when compared with last year. In Kaoma, for example, a medium sized cereal trader pointed out that the volume available at present is equivalent to the amount normally sourced in December.

In a 'normal' year, the majority of households will have depleted their domestic maize stocks by August/September. Consequently, they have no alternative but to purchase maize at a time when prices start to rise, reaching a peak in December/January. It is evident from Figures 1 and 2 above that this year maize grain prices in some areas started to rise in June. By comparison, last year, prices were relatively constant until the end of September/early October. Clearly, the early price increases seen in Livingstone and elsewhere reflect rural maize shortages. Valley districts and the southern province have the highest maize prices.

Link to household purchasing power

In normal years, household income generation is centred on the production and sale of crops: maize, cassava, groundnuts and vegetables. However, widespread crop failure has meant that households have had to diversify their income generating strategies. Now, most households have at least one member involved in casual labour during the agricultural season. Payment is sometimes received in cash, although it is increasingly common for labourers to be paid in kind. Additional income sources for the zones covered in this assessment include petty trade and sale of natural resources such as grass for thatching, charcoal and poles for house building. For villages located around rivers, the sale/exchange of fish features as a significant source of income.

Analysis of household level information indicates extremely limited purchasing power. The majority (between 81% and 90%) of households have less than ZMK 50,000 per capita available between now and March 2003. Furthermore, a significant proportion of these have less than ZMK 10,000 per capita at their disposal. Taking into consideration the fact that the cost of a 50 kg bag of maize grain currently stands between ZMK 35,000 and ZMK 50,000, it is clear that the majority of households will find it extremely difficult to cover their food needs through purchase.

Very few households have livestock and other assets to enable compensate for losses in crop production. Out all households interviewed, 33 percent had cattle but only 14 percent have more than 4 head of cattle. Other important livestock are goats, which only 18 percent of households reported rearing. About 6.4 percent of households have 10 or more of goats. Some of the

communities, particularly in the valley areas, parts of Eastern Province and parts of Northwestern Province, had no cattle or goats and therefore have little means to cope with the food crisis.

About 11 percent of households will sell livestock to enable buy food. The proportion of households who engage in casual labor has increased ten-fold over the last year in the surveyed communities. Last year, only 2 percent were engaged in casual labour, but this year about 16 percent expect to engage in casual labour to buy food. However, cash earning opportunities are low in rural areas due to pervasive poverty and the reduced harvest. Very low cash earnings are expected from casual labor. Areas, which have the largest food deficit/gap, have the least expected cash earnings from casual labor and livestock sale. .

Coping capacities and strategies

As discussed in the previous section, many households do not have adequate cereal stocks and have little access to labor opportunities. Previously, it would have been possible for households owning livestock, small ruminants or chickens to sell these assets in times of need. However, the prevalence of cattle disease has meant that average herd sizes have dwindled considerably. A minority of households now have a 'core' herd large enough to enable the sale of cattle or other livestock to off-set losses accrued due to crop failure. Deteriorating prices have further reduced their ability to rely on the sale of livestock in order to purchase cereal. Rather than sell their cattle, there are reports that the few households remaining with cattle are resorting to exchanging cattle for maize. Traders from Lusaka and elsewhere set extremely low exchange rates, in the knowledge that rural households have no option but to accept these poor terms of trade.

Households are therefore employing various coping mechanisms to meet their food and non-food needs. The lack of maize availability has meant that households in cassava growing areas have intensified cassava consumption earlier than usual. Reports of consuming tubers prior to their maturity are also common.

The major coping strategies have been reducing the number of meals, limiting the amount of food portion and eating more wild foods. About 65 percent have reduced the number of meals, 53 percent of households have skipped days without eating, 40 percent reported eating more wild foods than usual and 23 percent have eaten unusual foods. In Southern Province, the survey team interviewed two households that had reported poisoning and death due to consumption of unusual foods. About 32 percent have reduced expenditure on education and 37 percent have reduced expenditure on health. Very few households reported pulling children out of school.

Although wild foods (e.g *mongongu ,masabe, imbula, muhuluhulu*) are used to supplement the household diet even in normal years, many households have increased their consumption in response to widespread crop loss. In areas, where cassava is not grown, households have been consuming *mongongu* porridge since their staple food stocks ran out in June. There is concern that this level of wild food consumption is not sustainable; households are already reporting that they must travel significant distances into the bush in order to find small quantities of these foods.

The prevalence of labour migration is another coping strategy that has intensified this year. Reports of working age males and females traveling to urban areas in the hope of finding temporary work, as security guards or domestic servants, are widespread. There are also reports of semi permanent male migration to commercial farms in eastern province.

F. Social Groups and Gender

Social Groups

According to community wealth ranking, about 12 percent of the population in the surveyed communities are wealthy, 18 percent are classified as middle to above average, 38 percent poor and 32 percent poorest.

Table 5 below summarizes household characteristics, average livestock holdings, expected incomes for the period September and March, per capita cereal gap, food consumption index and the proportion of the population requiring food assistance by socio-economic group. As can be seen from the table, the poorest households are relatively older compared to other social economic groups. They have relatively small household sizes; 6 compared to 10 for the well off group. They have one or no cattle, no goats, the lowest income and largest food gap. About 50 percent of the population within this group has a cereal gap of more 83 kg per person or a seven-month gap. Total expected household income from sale of assets or labor during the next seven months is only ZK, 38,224, not enough to buy one 50 kg bag of maize at the current market price. Households within this group have the lowest food consumption index, an indication that they are not consuming foods frequently enough and/ consuming foods that have a low nutrient density. Based upon the evaluation of current available stocks, expected income earnings for and cereal requirement, about 89 percent of the poorest population requires food aid.

Table 5: Livestock Holding, Expected Incomes, Cereal Gap, Food Consumption and Percent Requiring Food Aid by Social Groups

	Socio Economic Group				Total
	Well off	Middle	Poor	Poorest	
Average age of head of household	48	47	47	54	49
Average Household Size	10	8	7	6	7.4
Average number Cattle Owned	25.4	5.3	1.2	0.2	4.5
Average number of goats owned	3.1	1.3	1.0	0.5	1.1
Average number of pigs owned	1.9	0.4	0.2	0.1	0.3
Average Cultivated Area	2.9	1.7	1.4	1.2	1.7
Average Expected Income, (09/02-03/03) - ZK	805,597	217,917	91,229	38,224	181,698
Median Per Capita cereal Gap/Surplus	77	-10	-54	-83	-53
Food Consumption Index	66	52	38	30	42
Percent Requiring Food Aid	17%	36%	72%	89%	

The poor group, on average, has about 5 cattle; one or two goats but 50 percent have no animals. Average expected total household income over the next few months is enough to purchase about two 50 kg bags of cereals if the prices remain at the current levels. Half the population within this group has a cereal gap of more than 54 kg per person, a gap of about 5-6 months. Overall, 72 percent of the population within this group will require food assistance.

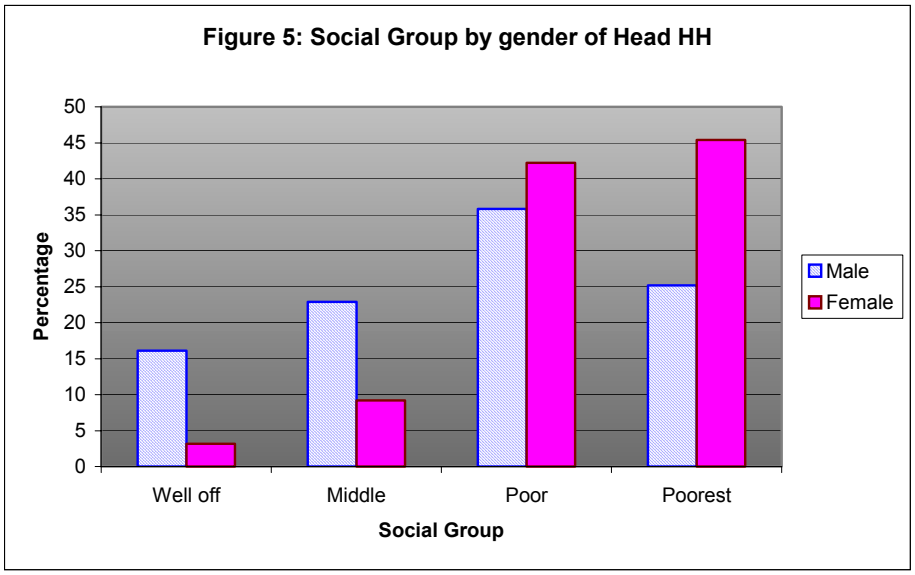
The middle group has a household size of eight people and cattle holdings of 5.3 but with 50 percent of the group with cattle less than 2. About 50 percent of the households within this group have a cereal gap of more than 10 kg,

The well-off households have on average 25 cattle and about 3 goats. Cattle ownership, however, tends to be region specific with some regions not rearing cattle or goats. About 50 percent of the populations classified as well off have 8 or fewer cattle. Well off households are relatively large with an average household size of 10 people but have surplus of 144 kg per cereal. Expected incomes during the next seven months are about ZK 805,597, enough to buy about sixteen 50 kg bags of cereals.

Gender

One in three households are female-headed. Female-heads are older, on the average 54 years of age compared to 47 years of age by male-heads. They have relatively small households, with on an average of 5.6 people compared to 8.3 people for male households. Female-headed households are disproportionately poor and have few assets compared to male-headed households (Table 6).

According to the community wealth ranking, 45 percent of female-headed were classified very poor compared to 25 percent for male headed households (Figure 5). Female-headed households have an average food deficit of about 15 kg per person compared to an average surplus of 35 kg person for male-headed households.



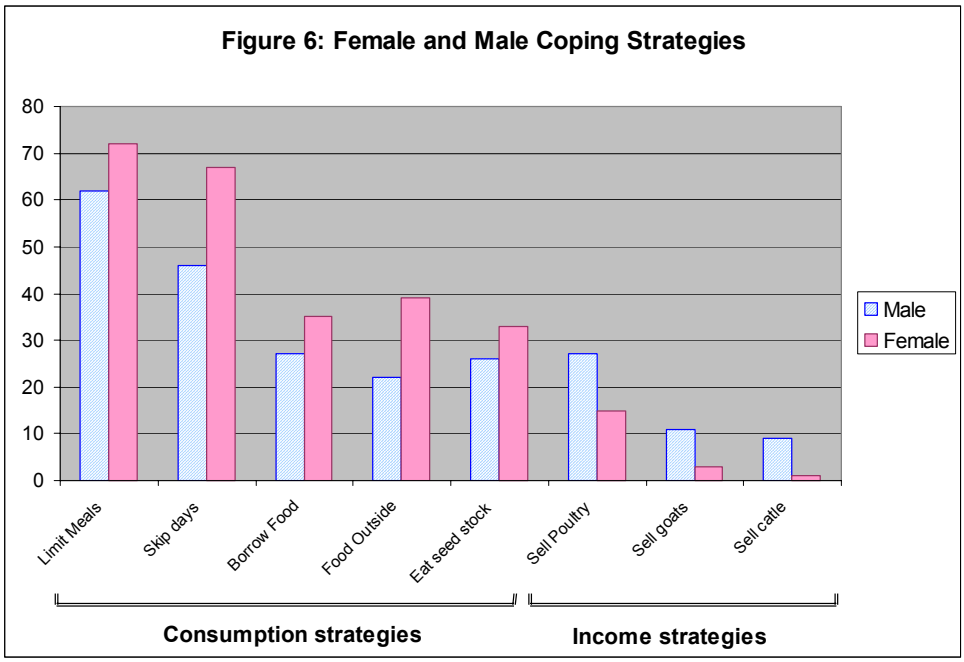
About 73 of female-headed households will need food aid compared to 57 percent of male-headed households. Households headed by women have a limited coping ability as they have fewer asset holdings and low cash incomes than their male counterparts. On average male headed households own 6.3 cows compared to 1.2 cows for female-headed households. Expected cash earnings over the next seven months for the male headed households is more than two times that of female headed households.

Table 6: Livestock Holding, Expected Incomes, Cereal Gap, Food Consumption and Percent Requiring Food Aid by Social Groups

	Gender		Total
	Male	Female	
Average Cattle Holding	6.25	1.52	4.51
Average Goat ownership	1.52	0.35	1.13
Average Pig ownership	0.51	0.15	0.39
Area Cultivated	1.78	1.15	1.57
Expected Income, Sept-Mar in ZK	224,375	96,353	181,701
Median Per Capita Cereal Gap	34.68	-15.75	17.84
Food Consumption index	45.43	33.87	41.58
Percentage Requiring Food Aid	59.%	74%	

Variation in coping strategies between men and women

As shown above female-headed households have low asset holdings and expect to earn lower incomes than their male counterparts and therefore have lower limited abilities to cope with a food crisis. Figure 6 shows some common coping strategies employed by male and female-headed households. Female-headed households attempt to compensate for their losses primarily through the reduction of food consumption, reducing the number of meals, switching to cheaper foods and some times even skipping days without eating. Female-headed households also rely more on gathering wild foods including consumption of unusual foods than male-headed households. On the other hand, more male-headed households are looking for alternative income sources to offset their losses in crop production through sales of livestock and assets.



Effects of crisis on orphaned children and elderly

About 30 percent of households are headed by an elderly person of 65 years of age or above. This is high and may be indicative of the high death rates of the younger population. About 50 percent of households headed by elderly people have children less than 15 years of age and on average, there are 3.8 children under the age of 15 in elderly homes. It is likely that these children are orphaned. Elderly people tend to look after older children compared to younger children. Elderly households take care of 1.3 under five children and 2.2 children of 5-15 years on the average. About 50 percent of elderly people have more than two children of 5-15 years of age while fewer than 50 percent have one child less than five years of age.

Elderly households tend to own fewer assets and have low earnings compared to younger households. Because of their limited productive capacity, children living in households headed by elderly people are likely to have lower food consumption compared to their peers in homes headed by younger heads. A comparison of food consumption among different types of households shows that households headed by elderly people have the lowest consumption index, which suggests that they have poor and/or low diet diversity. Female-headed household who are elderly have the lowest consumption index (Figure 7). About 80-90 percent of households headed by elderly reported no consumption of sugar, meat, fruits, oil or milk in a seven-day food frequency count.

G. Implications for Response

Targeting criteria

Table 7 summarizes the food consumption pattern by socio-economic groups. Each food was given a weight that reflects nutrient density; a higher score was attached to foods that provide more energy and nutrients and a low score to foods that provide less. Meat or fish were given the highest weighting, followed by legumes, cereals and lastly vegetable and fruit. The food consumption index is the sum of the weights or score that was attached to each food by their frequency of consumption during the seven days. The higher the index the more likely the diversity in the diet and the more likely a household would achieve nutrient adequacy. Households that are food secure are likely to have a high food consumption score than those that are not food secure.

Figure 7: Food consumption index and per capita food gap/surplus by gender and age of head of household

Age of Head HH	Gender	Food Consumption Index* (mean = 41.16)	Food Gap/Surplus kg per Capita (mean 15.85)
< 65	Male	48	49
	Female	37	-18
> 65	Male	37	-19
	Female	27	-33

Gender of Head HH	Livestock	Chronic Illness	Food Consumption Index* (mean = 41.16)	Food Gap/Surplus - kg per Capita (mean 15.85)
Male	More than 4 catle	No Chronic Illness	62	198
		With Chronic Illness	48	38
	Less than 4 catle	No Chronic Illness	43	9
		With Chronic Illness	34	-41
Female	More than 4 catle	No Chronic Illness	59	85
		With Chronic Illness	57	-60
	Less than 4 catle	No Chronic Illness	34	-23
		With Chronic Illness	32	-49

The food consumption index and per capita cereal gap were used to select a profile of households with a low food consumption and large food gap to become eligible for WFP food aid program. Correlation analysis enabled the selection of a number of variables that had a significant association with the food consumption index. Variables that had a significant association with the food consumption index defined the characteristics of households to consider for selection.

Based upon the analysis the target households have the following characteristics:

- Female headed households
- Households with less than 4 heads of cattle
- Households with land under mature cassava:
- Households with chronically ill members
- Elderly headed households

Consumption Patterns

This section uses two measurements of food security; number of meals and food consumption pattern. Food frequency counts were used to measure household food consumption patterns. Households were asked to list the number of times they consumed various food items. The more households consume a variety of foods the more food secure and likely they are to achieve nutrient adequacy.

About 42 percent of households had one meal a day, 43 percent eating two meals and only 17 percent households eating three or more a day. Households eating one meal are unlikely to be consuming enough calories for their need especially if there are children within the household.

Table 9 shows the food consumption patterns of the sampled rural households. The seven-day food frequency count showed that while 75 percent of households consumed cereals at least four times in a week, many were not consuming additional foods that would ensure nutrient adequacy. About 73 percent of households consumed vegetables more than 4 times a week. Apart from these two food items, households consumed other food items less frequently and therefore unlikely to achieve nutrient adequacy. About 75 percent of households reported no consumption of pulses, meat, eggs, poultry or milk during a one-week period. The results show a low consumption of complementary foods to staple foods, particularly foods with relatively high nutrient density, which is an indication that households are not likely to meet protein and micronutrient requirement.

Table 9 : Percent Households Reporting Consumption of Food Item in the Last week

Food Item	No consumption	1-3 times a week	4-6 times a week	7 times a week	Total N=655
Cereal	14%	8%	9%	69%	100%
Roots/tubers	54%	12%	5%	29%	100%
Pulses	74%	13%	4%	10%	100%
Meat	75%	21%	3%	2%	100%
Poultry					100%
Fish	52%	30%	6%	12%	100%
Eggs	88%	9%	2%	1%	100%
Milk	80%	9%	2%	9%	100%
Vegetable	12%	17%	10%	63%	100%
Fruits	65%	12%	5%	18%	100%
Oil	62%	12%	5%	22%	100%
Sugar	72%	13%	3%	12%	100%

Female headed households and households with chronically ill members recorded a higher proportion of households with no consumption of the major food items than their counterparts. The largest difference in consumption frequency is observed between male and female-headed households compared to the households with and without chronically ill members. More female households (by 10 percent or more) are not consuming sugar, meat, fish, milk and oil compared to male households It is worth noting that sugar in Zambia is fortified with Vitamin A and had been chosen as a medium for fortification because it was felt that it is consumed frequently food item by a large number of the population. The fact that a high proportion of households are not consuming sugar frequently suggests that households are not benefiting from the Vitamin A fortification programme.

Households further reported changing the food consumption pattern to cope with the food crisis. In the last two months preceding the survey, 61 percent of households reported consuming less preferred food, 39 percent had borrowed food, 65 percent reduced food portions, 64 percent reduced

Table 10: Proportion of Households Reporting NO Consumption of Selected foods by Households with/out Chronically ill, Gender and Age of Heads of Household

Food Item	Percent Household Reporting NO Consumption of selected foods in one week						
	Household with Chronically Ill Member		Gender of Household Head		Age of Head of Household		TOTAL
	No	Yes	Male	Female	LessThan 65 years	65 years or older	
Cereal	14	17	12	18	12	21	14
Roots/Tubers	51	62	55	52	57	45	54
Sugar	70	78	68	81	67	89	72
Vegetable	12	12	12	12	11	15	12
Fruits	66	62	61	73	62	77	65
Pulses/nuts	73	78	72	79	70	86	74
Meat	73	80	69	85	72	88	75
Fish	48	68	48	62	51	56	53
Eggs					86	94	
Milk	80	80	75	90	78	87	80
Oil	61	64	57	73	55	84	62
Average Number of meals	1.8	1.6	1.8	1.5	1.8	1.5	1.7

the number of meals and 53 percent had skipped days without eating. About 39 percent of household reported increased consumption of wild foods and 23 percent reported consuming unusual foods.

Core Numeric Results Regarding Food Aid

Table 11 shows the number of people requiring food assistance by period and district. The results shows that 2.87 million people do not have adequate household cereal stocks, assets and income to meet their food needs and therefore are in need of food aid assistance for the period between September 2002 and March 2003. Between September and November 2002, it is estimated that 2.23 million people are in need of assistance in 43 districts. This figure increases to 2.87 million by March 2003. An additional 87,000 target population in urban areas will need assistance for the period September to March 2003, making a total population of 2,897 million people in urban and rural areas. The proportion of population in need of assistance ranges from 15 percent in Chinsali district to 83 percent in Gwembe district.

Table 11: Core Numeric Results by District

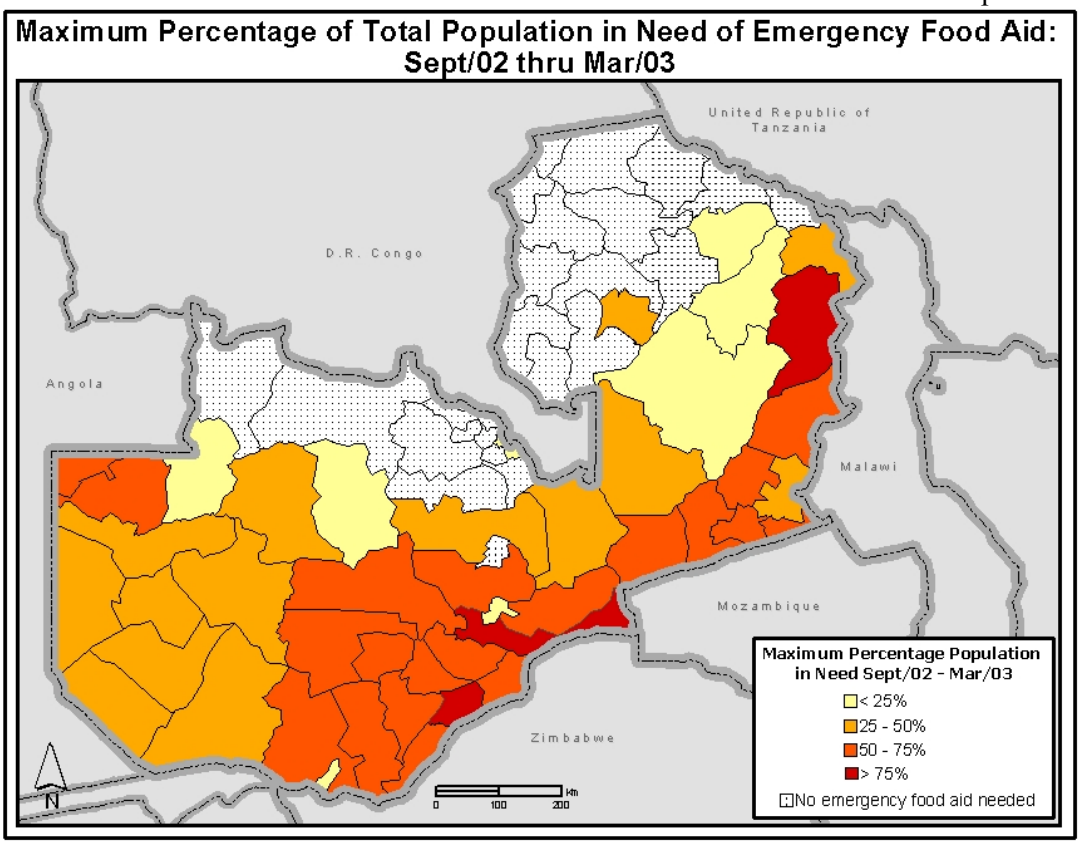
Administrative Information			Sept thru Nov/02		Dec/02 thru Mar/03	
Province	District	Population'	%Population in Need*	Number Population in Need	%Population in Need*	Number Population in Need
Rural						
Eastern	Chadiza	87,418	41	35,820	55	48,229
Eastern	Chama	80,294	51	41,060	77	61,590
N/western	Chavuma	35,059	28	9,890	54	19,013
Central	Chibombo	257,141	54	137,523	67	172,021
Luapula	Chiengi	87,935	0	0	0	0
Copperbelt	Chililabombwe	92,735	0	0	0	0
Northern	Chilubi	63,095	35	22,083	35	22,083
Copperbelt	Chingola	193,899	0	0	0	0
Northern	Chinsali	137,287	10	13,591	15	20,593
Eastern	Chipata	384,186	38	134,222	38	134,222
Southern	Choma	215,686	62	132,370	67	143,417
Lusaka	Chongwe	153,550	60	91,329	63	95,612
Southern	Gwembe	35,425	82	28,841	83	29,173
Northern	Isoka	107,140	31	33,300	31	33,300
Southern	Itezhi-tezhi	49,180	52	25,256	64	31,327
N/western	Kabompo	80,271	0	0	0	16,054
Central	Kabwe	194,878	0	0	0	0
Lusaka	Kafue	172,144	70	119,368	75	129,005
Western	Kalabo	128,221	30	37,863	43	54,729
Southern	Kalomo	177,643	55	96,915	68	120,270
Copperbelt	Kalulushi	79,512	0	0	0	0
Western	Kaoma	170,752	16	26,915	27	45,849
Central	Kapiri Mposhi	203,273	20	41,365	25	51,724
Northern	Kaputa	91,882	0	0	0	0
Northern	Kasama	190,894	0	0	0	0
N/western	Kasempa	59,298	0	0	0	11,860
Eastern	Katete	193,612	41	79,333	55	106,816
Luapula	Kawambwa	110,079	0	0	0	0
Southern	Kazungula	70,168	54	37,713	66	46,353
Copperbelt	Kitwe	424,684	0	0	0	0
Southern	Livingstone	167,780	3	5,595	3	5,595
Lusaka	Luangwa	23,329	169	18,300	169	39,300
Copperbelt	Luanshya	170,442	0	0	0	0

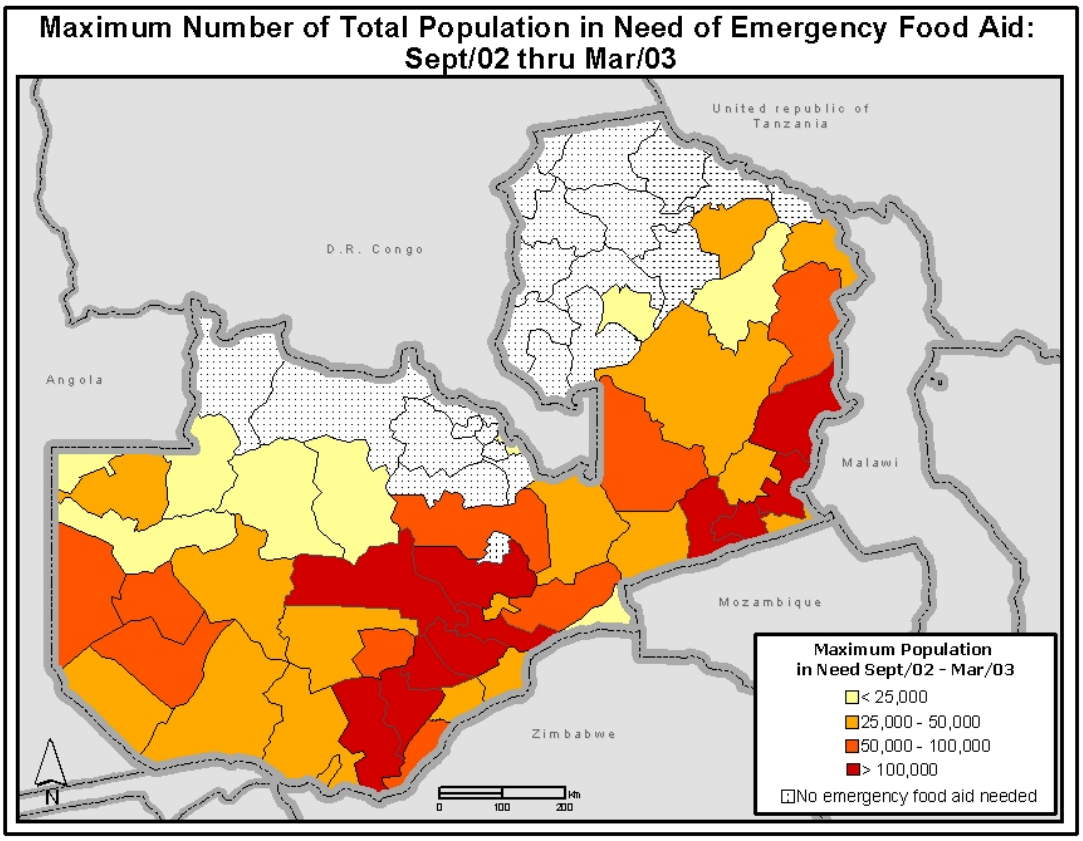
Administrative Information			Sept thru Nov/02		Dec/02 thru Mar/03	
Province	District	Population'	%Population in Need*	Number Population in Need	%Population in Need*	Number Population in Need
Rural						
N/western	Lufwanyama	69,811	0	0	0	0
Western	Lukulu	66,240	23	15,383	36	23,533
Eastern	Lundazi	251,149	44	108,849	60	150,787
Lusaka	Lusaka	1,170,611	0	0	0	0
Northern	Luwingu	88,446	0	0	0	0
Eastern	Mambwe	55,107	45	24,628	63	34,619
Luapula	Mansa	193,621	0	0	0	0
Copperbelt	Masaiti	106,773	0	0	0	0
Southern	Mazabuka	254,739	50	125,699	55	140,816
Northern	Mbala	171,370	0	0	0	0
Luapula	Milenge	28,925	0	0	0	0
Central	Mkushi	116,217	31	35,572	38	44,495
Western	Mongu	176,755	24	42,261	35	61,201
Southern	Monze	175,835	58	101,602	66	115,519
Northern	Mpika	154,165	16	23,991	21	31,914
Copperbelt	Mpongwe	74,275	0	0	0	0
Northern	Mporokoso	104,367	0	0	0	0
Northern	Mpulungu	70,372	0	0	0	0
Copperbelt	Mufulira	166,820	0	0	0	0
N/western	Mufumbwe	46,533	20	9,307	40	18,613
Central	Mumbwa	163,554	56	91,316	70	114,223
Northern	Mungwi	150,862	20	30,172	20	30,172
Luapula	Mwense	114,225	0	0	0	0
N/western	Mwinilunga	139,524	40	55,810	0	0
Northern	Nakonde	162,899	0	0	0	0
Southern	Namwala	87,745	49	42,551	59	51,341
Luapula	Nchelnge	120,586	0	0	0	0
Copperbelt	Ndola	430,308	0	0	0	0
Eastern	Nyimba	71,132	43	30,669	60	42,377
Eastern	Petauke	257,303	43	110,936	60	153,289
Luapula	Samfya	177,025	0	0	0	0
Western	Senanga	117,372	30	35,312	44	51,100
Central	Serenje	138,691	33	44,971	43	59,049
Western	Sesheke	83,455	39	32,623	50	41,519
Western	Shangombo	70,756	29	25,489	42	36,853
Southern	Siavonga	62,521	68	42,505	68	42,505
Southern	Sinazongwe	85,270	73	61,687	73	61,687
N/western	Solwezi	216,743				0
N/western	Zambezi	70,756	29	20,493	55	38,962
Urban						
	Urban Population	982,274	9	87,000	9	87,000
Total (Urban and Rural)						
	Total	**10,951,751**	**22**	**2,367,481**	**26**	**2,869,710**

As shown in the map 2 and 3, the highest proportion of the population in need of food aid are the valleys and Southern province where the percent population in need of assistance is between 75 to 83 percent. Districts which have valleys (eg Kapiri Mposhi, Mkushi, Serenje) have a high proportion of the population in need of food aid within the valley and not the entire district. Hence

identification of the affected food economy zones will be important to enable reach the most needy at the time of food aid distribution.

Map 1





Comparison with CFSAM in April/May

The VAC assessment identifies the need for 224,000 MT of food aid from September through March, 64,000 MT greater than forecasted by the CFSAM. The VAC assessment identifies a maximum of 26 percent of people in need, as compared to 21% by the CFSAM. The difference in the number of people requiring assistance between the August and CFSAM is primarily due to an early increase in maize prices compared to normal. This early increase in prices is eroding the ability of household to meet their food needs. It is likely that the number of people unable to meet their food needs will further increase as the price of cereals continue to increase. In the CFSAM, cereal ration size of 350 g per day was used whereas this assessment has used a ration size of 400 g. The CFSAM had an urban population of 45,000 in Lusaka whereas this assessment has included 87,000 OVC people in urban areas of Livingstone, Ndola, Chipata and Lusaka.

H. IV Emergency Response to Date

The FAO/WFP CFSAM estimated that 2.3 million people in 38 districts were in need of cereal food aid of about 174,000 MT. Rather than seek 100 percent of the identified need, WFP has initially requested 70 percent of the operation and in consultation with its NGO implementing partners will discuss what might be available for the second pipeline.

A consortium of NGOs comprising World Vision International, CARE and Catholic Relief Services have written a proposal to donors requesting a second pipeline for the population not covered by the initial WFP request (30% of the estimated 2.3 million people). The second pipeline will also be used to assist vulnerable households in districts where the NGOs are presently implementing development programmes. According to WVI, food from the second pipeline, if pledged, would not be expected to arrive before January 2003.

Under the current EMOP, WFP is targeting to provide assistance to 1.75 million of which 45,000 are urban population with total estimated food needs of 130,600 for nine months. As of 5 August 2002, total contribution for the EMOP has been 32,255 MT, of which 16,300 MT is in country. Out of this total contribution 13,000 MT is maize from the USA and likely to be GMO maize. The decision by the Government to ban importation of GMO has severely affected the pipeline (see discussion below on Government policy and action). As a result of the new GMO policy, there is a reduction in the pipeline to only 7,000 MT of commodities in September against a pipeline of 15,000 MT when yellow maize is considered. In October, the Zambia pipeline would have been 24,000 MT with yellow maize but has now dropped to about 2,000 MT. In November, the pipeline with yellow maize is about 20,000 MT and now has been reduced to about 2,500 MT.

In June 2002 WFP distributed 3,8825 MT of cereal to 627,758 people against the planned 5,702MT to 463,918 people. In July 2002 WFP had planned to distribute 5,397 MT to 419,111 people.

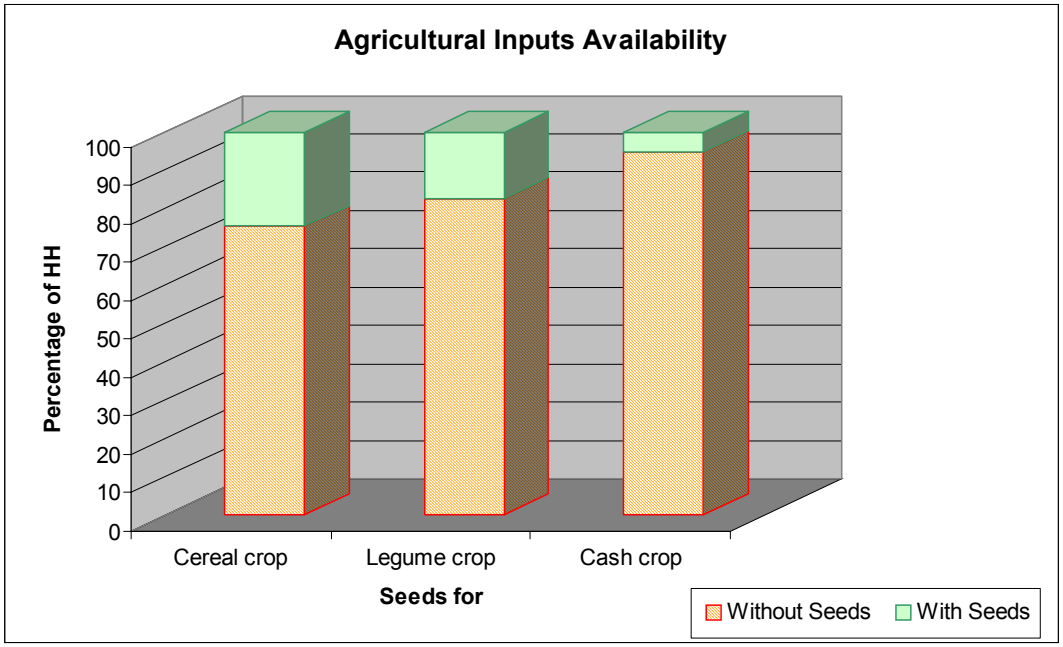
About 32 percent of the population in the surveyed areas received food aid. The GOZ has distributed 3,300 MT of maize to vulnerable population. Households were asked to indicate whether they had received food aid and whether it was adequate. On average, about 32 percent of households within the surveyed areas received food aid within the last six months. Household on average received about 13.5 kg of maize per household per month. Two to three distributions have been made since April. During community interviews, households would like improvement in the flow of food from month-to-month, e..g., consistency in the quantities and frequency of distribution. Households are calling for improved communication between central level and the distribution level and strengthened monitoring to reduce the abuse of food.

I. Availability of Agricultural Inputs

The majority of households would like to increase hectarage under crops for the 2002/03 agricultural season but the majority of the population have no seed. The major limiting factor to agricultural production as identified by the communities is the lack draught power, the lack of inputs

and late delivery of inputs, particularly seed. As of August, many households did not have seed and did not know where to get the seed for the coming agricultural season.

About 75 percent of households do not have own cereal seed for planting during the coming 2002/03 agricultural season; 97 percent of female-headed households reported having no cereal seed. About 83 percent households have no legume seed but only 18 percent expected to purchase legume seed. Overall 52 percent of the households interviewed would like to increase land under cultivation. About 50 percent of female-headed households plan to cultivate about the same area as last yea while 56 percent of male-headed households plan to increase land under cultivation. The major limiting factor to increasing land area for cultivation is the lack of draught power. Many households do not expect to apply fertilizer to their crops due to lack of money to pay for the fertilizer and in some case households are not sure of its availability. Only 37% of households plan to apply fertilizer in the coming season. Female-headed households are less likely to use fertilizer than male-headed households; 28 percent of female-headed households plan apply fertilizer compared to 62 percent among the male-headed households.



Monitoring Indicators and sentinel sites

The Zambia VAC recommends the following indicators to understand the progression of food aid needs:

- Food prices
- Physical access for purchase
- Coping strategies
- Water availability
- Adult anthropometry to understand how low access to food is affecting households. Child anthropometry may not have adequate sensitivity because parents may be foregoing food to enable children have some food.
- Disease outbreaks – human and livestock
- Input availability and rainfall during the cropping calendar
- Price of inputs
- Commercial imports