ZIMBABWE FOOD SECURITY ISSUES PAPER

for

Forum for Food Security  **in Southern Africa**

Preface

This is one of five Country Issues Papers commissioned by the Forum for Food Security in Southern Africa.

The papers describe the food security policy framework in each focus country (Malawi, Mozambique, Lesotho, Zambia and Zimbabwe) and document the current priority food security concerns there, together with the range of stakeholder opinions on them. The papers have been written by residents of each country with knowledge of and expertise in the food security and policy environment.

The purpose of the papers is to identify the specific food security issues that are currently of greatest concern to stakeholders across the region, in order to provide a country-driven focus for the analytical work of the Forum for Food Security in Southern Africa.

As such, the papers are not intended to provide comprehensive data or detailed analysis on the food security situation in each focus country, as this is available from other sources. Neither do the Forum for Food Security, its consortium members, and funders necessarily subscribe to the views expressed.

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Introduction

In 2002, Zimbabwe experienced a severe crop failure due to early termination of the rains in February. The reduction in yield and output at farm level led to a 70% shortfall in production to meet annual food requirements. This was the largest deficit in its food production history since 1980.This created severe food shortage in both urban and rural areas. The food shortages, in turn, deteriorated into a famine and a humanitarian disaster. The cereal deficit in the April 2002 – March 2003 marketing year was estimated at 1.65 million tonnes (Zimbabwe Vulnerability Assessment, 2002). According to the Zimbabwe Emergency Food Security Assessment, 486 000 tonnes of food aid was needed to meet food security requirements of 6 700 000 people (49% of the population) over the period September 2002 to March 2003. Of the 6 700 000 requiring food aid, 5 900 000 were in rural areas and 850 000 in urban areas. Seventy percent of the rural population was at risk of famine-induced starvation (WFP, 2002). It was projected that the rural population at risk would increase to 80% and 100% by end of 2002 as households ran out of stocks. The scale of the food aid was unprecedented in the history of Zimbabwe.

Despite the food security achievements and experiences of the past twenty years and early warnings of a pending crisis, the country was ill prepared and not able to cope unlike in earlier droughts. The country had exhausted its strategic grain reserve. Due to foreign currency shortage, the country did not have the capacity for commercial imports needed to meet 70% of its annual maize requirements. World food aid became a major source of relief to avert national food security disaster.

Yet, in the past, Zimbabwe has been food self-sufficient and even exported surpluses to fellow SADC countries and others (such as Ethiopia). The country coped well with the droughts of 1987, 1982 and 1992. Several inter-related factors that can be attributed to the situation the country found in. The country had not recovered from the effects of the Cyclone Eline in the1999/2000 season as well as the effects of a mild dry spell season in 2000/2001. Before 1999, the country had produced surplus and maintained a strategic grain reserve that covered six-nine months. Years of economic decline and balance of payment problems reduced the capacity to produce outputs such as food crops and exportable commodities to earn foreign currency. The prevailing political and economic factors constrained the government's ability to respond promptly and effectively to the unfolding food security crisis. On responding, the measured adopted to some extent exacerbated the food insecurity situation.

In examining food insecurity and vulnerability in Zimbabwe, one needs to understand the basic causes of the problem. This paper outlines the food insecurity issues and underlying factors that could have led to the food insecurity crisis of 2001-2002. The paper is based on various stakeholders' perspectives and views of the historical and current factors that turned a food surplus country into a deficit country requiring the intervention of the World Food Programme to feed close to 9 million people. The views and perspectives were collated through interviews of selected stakeholders and a review of both published and "grey" literature and official documents.

1 Policy Process and Policy Learning

1.1 Stakeholders and interest groups

Table 1 gives key stakeholders in the food system, their interest, relative power, and advantage point. The relative power and leverage point of each is assessed on how effective each stakeholder has been in influencing policies.

Up to 2000, both large and smallholder farmers were the main key stakeholders for agricultural production and food security in Zimbabwe. The large-scale farmers had a comparative advantage over the smallholder farmers since they have better access to technology, finance, more productive land, and good management. They were better placed to exploit the opportunities presented without difficulties. As their farms produced a substantial proportion of the food and cash crops, they had direct influence on the agribusiness, the marketing and to some extent the pricing of their commodities. They occasionally set aside some of their land or delayed marketing to influence pricing and also to challenge government policy

Large-scale farms had substantial information advantage over the communal area farms. They had little difficulty in keeping informed about government programmes and options available to them as well as relating specifically to one's farming operation. When farm policies were introduced that require significant changes in farming operations, large-scale commercial farmers easily adapted their production strategies.

Up to 2000, the large-scale commercial farmers had economic power and political influence derived from their production base and outputs. They produced the bulk of the export commodities, tobacco, horticulture, and beef that were the mainstay of the Zimbabwe economy. The private agriculture service sector (financial consults, irrigation specialist, agronomist and other technical experts) was heavily dependent on the large-scale farm business and contributed significantly to the GDP. The farmers' resources and expertise played significant role in the economic performance of the economy.

As the economic performance of the economy had direct influence on large-scale farming businesses, these farmers had interest in influencing the government's economic management. The farmers made direct appeals and contacts to the officials of the Ministry of Lands, Agriculture, and Rural Resettlement. This is evidenced by the number of interest groups or organizations that represent the interests of the large-scale farmers apart from the Commercial Farmers' Union (CFU). These are:

- Zimbabwe Tobacco Association
- The Commercial Grain Growers' Association (for maize, sorghum)
- The Commercial Cereal Growers' Association (for barley and wheat)
- The Oilseed Growers" Association (groundnuts, sunflower, soyabean)
- The Commercial Cotton Growers' Association
- The Cattle Producers' Association
- The Dairy Producers' Association
- The Horticultural Promotion Council
- The Wildlife Producers' Association.

Table 1 Stakeholders and interest groups in the food system

Stakeholders and Interest Groups	Particular Interest	Relative Power	Leverage Point
Government Ministries			
Lands, Agriculture & Rural Resettlement	Custody of agricultural policy	Currently not clear	Maybe final say on agriculture policy
Finance and Economic Development	Macro-economic growth and stability	Power derives from total control of treasury allocations	Pull Budgetary and treasury strings that determine allocation of expenditure
Rural Resources	Sharing of resources for rural infrastructure development	Have resources for development of rural infrastructure. Irrigation schemes, roads	Conduit for distribution of resources with political mileage for government Conduit for distribution of rent to well-connected people.
Local Government and National Housing	Civil protection, coordinates government social protection programmes, drought relief and emergencies Coordinates and oversees all local government administration and leadership	Controls the distribution of social protection and relief resources Has direct control and influence over local government administration through District Administrators and local traditional leadership	Has direct influence on local government and traditional leadership Use of social protection and relief resources for buying patronage and support.
Public Service, Labour & Social Welfare	Maintaining welfare and implementation of social safety nets and welfare programmes	Access and distribution of social protection programmes	Has influence in determining social welfare goods
Cabinet Committee for Incomes and Prices	Monitors the impact of incomes and prices and implementation of social-economic programmes on economic performance, employment and social well-being of the population	Coordination, monitoring, and decision-making with respect to prices and wages.	Has influence or final decision on setting or control of prices and incomes
Food and Nutrition Council	Development and monitoring of policies, strategies and programmes for addressing food and nutrition security	An inter-ministerial policy making body. However, influence currently limited due to institutional arrangement problems, limited independent technical capacities, and inadequate resources. It depends on goodwill of the constituent members	Its role is fairly respected
Parliamentary Portfolio Committee on Lands, Agriculture, Water Development, Rural Resources and Resettlement	The Committee monitors the general performance of the executive (government) and undertakes specific investigations for information of Parliament.	Currently not yet effective in influencing policy and conduct of government.	The potential derives from the powers of the Parliamentary Committee to summon, investigate and make public
Farmers:			
Large-scale commercial farmers	Long-term viability of farm enterprises	Well organized, small in number, significant producers of export crops	Currently none due to land reform

		(tobacco, horticulture)	
Small-scale commercial farmers	Immediate, short-term and long-term sustainability of household livelihood	None	None
Communal Lands Farmers	Immediate, short-term and long-term sustainability of household livelihood	Large numbers Significant producers of major crops	Political constituents and base for ZANUPF
Resettled Farmers	As for communal farmers	None	Progressive farmers?
New Farmers (from land reform)			
A1 farmers	To enhance their livelihood through agriculture To make move to new lands a success for themselves and the government	Highly politicized and responsive to political manipulation	Political astute Potential political constituent
A2 farmers	Creation and amassing of wealth for own benefit	Most influential individuals, civil servants, army officers; highly articulate	Direct influence on policy direction through direct contact with political leaders
Local rural leaders:			
Traditional leaders	Self preservation and extracting rent from government	Custodian of common resources and customary law Opinion giving to political leadership	Point of access to rural folk
Elected Rural Council	Political power, influence used to extracting rent/benefits	Determining resource allocation and development programmes	Entry and contact point for local political influence
Agribusiness			
GMB	Acquisition (from local and external sources), storage and distribution of grain to ensure national food security	Derives from statutory powers that establishes the GMB and governs its role and functions; has power to distribute grain to millers, consumers, politicians	Monopoly power derived from legal instruments
AGRIBANK	Long-term viability and maximizing dividends	Quasi-government	Conduit for transfer of financial resources to influential people
Milling Companies	Profit, viability and maximising shareholder value	Oligopoly power. Without government control, they collude to decide on product supply and prices.	Market power
Livestock Feed Processors	Profit, viability and maximising share holder viability	Monopoly	Market control
Livestock farmers:			
Pig producers	Profit, long-term viability	Independent commercial activities	Market control
Poultry producers	Profit, long-term viability	Independent commercial activities	Market control
Cattle producers	Profit, long-term viability	Independent commercial activities	Market control
Input suppliers			
Seed producers	Profitability	Monopoly	Market control
Fertiliser manufactures	Profitability	Oligopoly	Market control
Fertiliser distributors	Profitability	Oligopoly	Market control

Agricultural chemical	Profitability	Oligopoly	Market control
Farm machinery manufacturers and supplies	Profitability	Oligopoly	Market control
Agribusiness services firms			
Accounting businesses	Profitability through service	Knowledge and expertise	Expertise and international connections
Commercial bank agribusiness units	Profitability through service	Knowledge and expertise	Expertise and international connections
Specialist services (e.g. irrigation, machinery hire services, repair services, transporters, freight, etc)	Profitability through services	Knowledge and expertise	Expertise and Market control
Consumers			
Urban working class	Access to affordable food and income security	While relative population size is important, their influence is limited by political situation that makes them opposition stronghold.	Could be organized to articulate their needs Potential political power base and constituency for political parties
Urban unemployed	Access to and affordability of food	While relative population size is important, their influence is limited by political situation that makes them opposition stronghold.	Potential political power base and constituency for political parties
Non-farming rural inhabitants	Access to and affordability of food	Very limited due to lack of economic powers and resources	Potential political power base and constituency for political parties
NGO: (Local and International)			
Christian Care World Vision Care International Africare World Lutheran Federation ORAP Plan International Catholic Relief Save Children UK Save Children USA	Advancing food security and social well-being of communities Economically empowering local communities Securing and maintaining funding from sponsors	Access to financial resources Influencing and mobilizing local communities for their own development Influencing international community on local development and governance issues thus determining flow of resources Relative power is however currently limited because of government mistrust and obstacles	Access and distribution of resources Well connected internationally Well informed and respected for their work Ability to influence resource flow and international opinion
International Donors (Development partners): USAID DFID GTZ NORAD AUSAID Canada CIDA	Promoting poverty reduction at community levels through efficient and effective use of donor resources	Derived from having resources to finance development programmes which is seen as being in support of government efforts Relative power is however currently limited because of government mistrust. A number of the donors have	Ability to influence resource flow and international opinion.

These commodity interest groups represented the same farmers as these farmers grew or were capable of producing nearly all the commodities on their farms. The commodity interest groups exerted additional pressure on the policy formulation process. The smallholder farmers were/are represented by Zimbabwe Farmers Union (ZFU) that is vocal but considerably weak organizationally. In terms of influencing the policy formulation process, the ZFU does not have political influence or the respect formerly commanded by the CFU.

The above changed following the land redistribution and reform programme that dismantled white commercial farming. The process is still unfolding. However, the initial indications are that, in terms of influence, the A2 farmers could replace the former white commercial farmers.

Some individuals farmers are exerting their own influence on the policy decisions for their own advantage, i.e. acquiring farm and resources formerly owned by the displaced farmers, extracting benefits from government programmes (such as the input support scheme). These new farmers include influential army personal, senior government officials (permanent secretaries, local government officers and agricultural service officers). Agricultural and Local government officers were responsible for planning and allocating the re-distributed, respective. They used the information and their influence to obtain land for themselves or influential or prominent persons. They are also using their access to information to disproportionately benefit from government support schemes for the new farmers (such input schemes, loans, etc).

1.2 Institutional environment

The Ministry of Lands, Agriculture and Rural Resettlement has the mandate to make policy pertaining to production, marketing and pricing of agricultural inputs and produce. The Ministry of Public Service, Labour and Social Welfare deals with social protection aspects such as drought relief and food distribution. The Cabinet Committee on Incomes and Prices scrutinizes proposed strategies that have a bearing on food affordability and access (such as prices of basic commodities).

The Food and Nutrition Council, attached to the Ministry of Finance, acts as an inter-ministerial policy coordinating body for issues on nutrition. Its major role is to influence budgetary allocation for the development and oversight on implementation of food security and nutrition programmes.

The Parliamentary Portfolio Committee on Land and Agriculture is a recent development. Its role is investing issues and concerns pertaining to food, agriculture, and natural resources. It scrutinizes the Ministry of Lands, Agriculture and Rural Resettlement's functions, policy development and implementation. However, it has very limited powers outside Parliament to influence and effect policy changes.

Individuals have recourse to the law courts should they feel that the rights have been infringed upon. A recent case is the challenge by a firm that sought the removal of the monopoly marketing and trading accorded to Graining Marketing Board. The Supreme Court decided in favour of the GMB.

A variety of newspapers report freely on the agriculture and food security issues. The dailies are the Daily News, the Herald, and the Daily Mirror. The Sunday papers are the Sunday Mail and the Sunday Mirror. The weekly papers include the Financial Gazette, the

Independent, and the Business Tribune. Although all the papers report without constraint on agriculture and food issues, they tended to reflect political perspectives on the issues and score political points for the side they are sympathetic to. The media sympathetic to government tend to be non-critical.

In last two years, (2000-2002) the institutional environment has been heavily interfered with by political considerations. The government used the media to promote its land/agrarian reform programme.

1.3 How food security policies have been made

Since independence, professional civil servants in the Ministry of Lands, Agriculture and Rural Resettlement have been responsible for developing agricultural strategies related to food security. Most of the strategies were developed in response to concerns expressed by the politicians or actions called for by the cabinet. Although the Ministry consulted key stakeholders (farmers' organizations) or in some cases called for their positions, the domain of policymaking was dearly held to be one for the civil servants. Typically, the civil servants adhered to the principle of secrecy to prevent information leakage. Some pronouncement took farmers by surprise. This was done to forestall any speculation.

In the late 1980's, the UZ/MSU Food Security Research in Africa Project working in partnership with the Ministry and other stakeholders (Nutrition Unit in the Health Ministry, official in the Ministry of Finance, SADC Food Security) undertook a series of research to unveil the issues of food security at household, national and regionally levels. The results were presented and debated on at an annual food security conference. These efforts are attributed to changes in food security based on household self-sufficiency to one that incorporated market based strategies.

Up until 1990, the Ministry had adequate organizational capacity to develop and implement strategies on food security. The influence of donors became more visible in the 1991-1995 period with the development and launch of the Structural Adjustment document. Donors were involved in providing funding for consultative meetings that led to the drafting of the Zimbabwe Agricultural Policy Framework (1995-2000) and the defining of the aborted Agricultural Sector Management Programme.

Political interference is a major problem for policy implementation. The politicians interfered to draw political benefits from the policy implementation. For example, politicians wanted food aid to be distributed on a political platform to win votes. Another problem has been inadequate budgetary support for implementation in cases where funding was not provided by donors. It has also been noted that some programmes and strategies were enthusiastically implemented as the officials involved stood to benefit financially. For example, meetings were well attended because participants received allowances.

In Zimbabwe, public agencies are generally not accountable to the public. The Minister of Lands, Agriculture, and Rural Resettlement Minister is accountable to the Party and Parliament, in that order. In last two years (2000-2002), the Minister appears to have been heavily influencing the policy process. He questioned crop-forecasting statistics indicating that they would be production shortfall. He publicly denounced his official on this. He only publicly acknowledged the drought impact when it was too late. He appears to have had no regarded for the technical information and advice of his officials.

1.4 Political access and influence by the poor and food vulnerable groups

The poor and food vulnerable groups are supposed to present their interests to policy-makers through political party structures represented by elected councilors. Traditional leaders are also supposed to act as conduits for communicating local concerns and interest as well as for accessing publicly distributed resources. It is not clear whether these obtain. What is apparent is that the more organized and influential the officials and chiefs are able to extract more benefits for their local communities.

1.5 Policies affecting food production, food trade and marketing

1.5.1 Lack of a clear and well-articulated agricultural and food security policy

Zimbabwe has never had neither a clearly articulated agricultural policy nor one on food security until 2002. The country came up with the Zimbabwe Food Security and Strategy for presentation at the FAO World Food Summit, 2002. Past strategies were based on political reactions to unfolding situations. As a result, there were inconsistencies whereby one strategy contradicted another with respect to food security. Due to lack of a food policy, the strategies adopted did not follow or develop into a consistent framework for addressing food insecurity in the country. The sub-sections below outline some of the observations on how the lack of a comprehensive food and agricultural policy would have influenced food security at household and national levels.

1.5.2 Treating smallholder farmers as a homogenous group

In spite of past measures to stimulate rural food production and incomes, food insecurity remains highly appears prevalent in the low rainfall communal areas (Stanning, 1987; Rohrbach, 1987; Jackson and Collier, 1988). Evidence suggests past increases in food grain production and marketing had been both concentrated in high rainfall regions and within these regions, most of the marketed surplus is produced by a small proportion of the households (Stanning, 1987; Rohrbach, 1987; Jackson and Collier, 1988; Chigume, forthcoming). Yet, strategies adopted had tended to treat the smallholder farmers as a homogenous group. The government's approaches of incentives did not deal with the unique technological and socio-economic needs of the farmers of different resource endowment.

1.5.3 Lack of diversification of source of food security

There has not been much diversification from maize as the dominant source of food security. Small grains (sorghum, millets) play very little role in household food security in the urban areas and rural areas outside the two Matebeleland provinces. Even in the latter, maize is the mainstay of household food security. In the urban areas, bread is the second source of food security. Tubers (sweet potatoes, cassava and yams) play very little role as regular sources of household food security even in areas where they are produced. They become important when there is a shortfall in maize production.

1.5.4 Land/agrarian reform

Access to adequate and suitable land are major determinants of agricultural production, national and household food security. Since most smallholder farmers have inadequate landholdings of generally poor quality, there has always been need to examine ways of allocating prime land to some of them.

In September 1998, the government launched what it termed the Second Phase of the Land Reform and Resettlement Programme with the following broad arguments:

- The pace of land acquisition needed to be enhanced for the sake of social stability, poverty alleviation, peace and justice
- Land redistribution had better and higher financial and economic returns (citing A study entitled Land Reform And Poverty Alleviation in Zimbabwe: Farm Level Effects and Cost Benefit Analysis)

Table 2 Number settled under the fast track resettlement programme (as at March 2002)

	Formal Settlement			Informal Settlement			Overall Total	
	No. of Farms	Area (ha)	No. of Settlers	No. of Farms	Area (ha)	No. of Settlers	No. of Settlers	Area (ha)
Province								
Manicaland	178	157363	9874	9	21934	1842	11716	179297
Mashonaland East	298	321552	17549	43	28790	2038	19587	350342
Mashonaland Central	264	324726	10649	4	4936	203	10852	329662
Mashonaland East	406	565570	18741	53	67880	1805	20546	633450
Midlands	217	463820	16708	19	37043	1382	18090	500863
Masvingo	226	1139108	25933	9	129396	4377	30310	1268504
Matebeland South	253	890507	8080	16	118914	2474	10554	1009421
Matebeland North	186	524444	7367	3	7915	165	7532	532359
Total	2028	4387090	114901	156	416808	14286	129187	4803898

Source: Government of Zimbabwe, 2002.

In April 2000, Parliament approved change in the Zimbabwe Constitution to establish the Legal Framework for land acquisition and compensation. This placed the financial obligations for land reform and compensation on the British government. The government of Zimbabwe was to be responsible for compensation of physical developments on the acquired farms. The Land Acquisition Act was amended to streamline the procedural aspect of the acquisition process. This was intended to speed up the process of acquiring and distributing the farms.

The government intended to acquire 11 million hectares from the 16 million hectares in large-scale commercial agriculture. As indicated in Table 2, by March 2002, 129187 households were settled under the “Fast Track Resettlement Programme” on 4 803898 hectares acquired from 2184 large-scale commercial farms. These were settled under Model A_1 (this consisted of households settled in demarcated villages on the acquired farms). Some 19 677 farming units were demarcated from acquired large-scale farms and

settled under the model A_2 (self-contained farming units). The policy was to distribute 60 percent of the acquired land for A_1 settlement and 40 percent for A_2 settlement. The actual distribution in five provinces as at March 2003 is shown in Table 3

Table 3 Allocation of acquired land to A_1 and A_2 settlers (as at March 2003)

Province	**A_1**		**A_2**		**A_1**	**A_2**
	No. of farms	*Area (ha)*	*No. of Farms*	*Area (ha)*	*%*	*%*
Mashonaland Central	344	382 320	295	200 319	65.62	34.38
Mashonaland East	358	291 239	350	251 338	60.90	39.10
Mashonaland West	573	683 760	424	451 656	56.25	43.75
Manicaland	227	181 179	140	75 996	70.45	29.55
Matebeland South	246	1 638 400	65	187 188	81.90	18.10

Source: Government of Zimbabwe, 2003

Maximum farm size regulations

In December 2000, Government gazetted Structural Instrument Number 288 of 2000 in which maximum farm sizes were prescribed for all the agro-ecological regions of our country. This was following the Government decision not to introduce Agricultural Land Tax that would have allowed farmers to maintain their existing farm sizes. The maximum farm sizes were detailed as follows:

Table 4 Maximum farm size for Zimbabwe's agro-ecological zones

Agro-Ecological Zone	**Maximum Farm Size (ha)**
I	250
IIa	350
IIIb	400
III	500
IV	1500
V	2000

By the maximum farm size instrument, every farm that had not been gazetted for compulsory acquisition was to be immediately sub-divided to comply with the maximum farm size regulations. The regulation affected the following properties

- All un-gazetted large-scale commercial farms
- Plantation farms
- Agro-industrial properties
- Properties with Export Processing Zone (EPZ) permits
- Properties with Zimbabwe Investment Centre (ZIC) permits
- Properties belonging to foreign nationals and
- Approved conservancies.

The government's intention is that all farming units are to conform to the maximum farm sizes. However, there is increasing evidence that some of the indigenous farmers are resisting this policy directive and prefer to own or operate the undivided farm.

Potential effects of the agrarian/land reform on food security

It is the government's contention that small farms and related enterprises would be more productive than the exiting large farms. Secondly, it expected that the implementation of

the Maximum Farm Size regulations would release more land for the Land and Agrarian Reform exercise. But the overall policy goal is to ensure that agricultural production would not be influenced by few farmers who would choose to (a) either under-utilize the land or (b) hold the country to ransom the country with detrimental effect on food security, employment creation and economic growth.

The food security implications of the land and agrarian reforms have yet to be measured. However, it is clear that the agrarian reform have both short-term and long-term implication on food security. In the short-term, the programme disrupted food and cash crop production. The land that could have been put to maize, wheat, sunflower, and cotton in the large-scale farming areas was taken out of production during the process of redistribution. The historical situation has been that large-scale food crop production was more stable than Communal Land food crop production due to the more favourable agro-ecological environment (in Mashonaland Central, Mashonaland East, and Mashonaland West) and investment in supplementary irrigation. With the land not in production, the country was more vulnerable to the 2001/2002 drought.

The agrarian reform displaced farm workers. This increased the population vulnerable to food insecurity because the displaced workers have no access to own land for food production. Other short- and medium term effects could be:

- The remaining farmers may feel insecure and stop farming operations leading to reduction in food output.
- It will take time and special support efforts for the new farmers to master their environments. In the meantime, there will be a shortfall in food and cash crop output. This is the rationale behind the Government's Z$1,4 billion Crop and Livestock Input Scheme, a support programmes targeted at communal, indigenous and resettled farmers. Experience from similar schemes in the past makes one question whether these schemes would not be misused and diverted by the influential individuals.

1.5.5 Grain marketing policy

As the food deficit reached precarious levels in the period 2000-2003, in July 2001 the Government promulgated a new grain marketing policy, the *Statutory Instrument No 235A of July 16, 2001.* This intended to address the maize shortage and build up official stock levels The instrument stipulated that maize, wheat and their milled products were controlled commodities, and that the GMB was the sole buyer and seller of maize and wheat. This meant that farmers could not sell to any party other than the GMB. The immediate impacts were:

a) The Zimbabwe Agricultural Commodity Exchange (ZIMACE) suspended all trade in agricultural commodities in August 2001.

b) Private sector firms that had been purchasing grain directly from farmers stopped buying. This had the effect of reducing the flow of cash incomes to the maize surplus households. This, subsequently, created cash-flow problems for input purchases for the next agricultural production.

c) Traders who had been buying maize in surplus areas to sell in food deficit communal areas and urban areas were rendered illegal. This had the effect of de-stabilizing the flow of grain to deficit areas. As a result, shortages were created. The shortage so created led to rise in local prices of maize. As the grain trade went “underground”, the

traders put a risk premium on the grain price thereby increasing the local maize prices. The overall effect was to exacerbate food shortages and raise the maize price, in both rural and urban areas. Households in food deficit areas and those with low income were affected negatively.

d) Despite GMB's new monopoly, the maize deliveries to GMB did not increase significantly compared to those of previous years. This was due to (i) the low maize price offered by the GMB, (ii) the low volumes available for sale in the market and (iii) high demand for maize at prices in local markets in the producing areas that were higher than GMB prices, and (iv) farmers withholding their grain for sell later. In addition, the GMB infrastructure, which had been abandoned during the commercialization period, was not ready to offer the farmers an easy to reach market to sell their grain. This did not encourage farmers who had limited quantities from selling. As the GMB did not have sufficient grain to sell to the millers, the overall effect was shortages of maize meal in urban areas.

Farmers were also reluctant to sell to GMB because of their experience in 1999 and 2000 marketing year when the GMB failed to pay for over nine months for maize purchased from farmers.

In response to low deliveries, the GMB adjusted the maize producer price per metric tonne from Z$7 500 (US$136.36) to Z$8 500 (US$154.55) and latter to Z$9 200 (US$163.63). These prices translated to US$136.36, US$154.55 and US$163.63 per tonne, respectively, at the official exchange rate of Z$55 to US$1. However, the price remained too low relative to the per kilogram cost of production inputs that had increased by more than 50 percent. Local markets remained more attractive.

The government reaction and response to the food deficit through the statutory instrument did not help the food security situation.

1.5.6 The macro-economic management strategies and implication on food security

In the period 2000-2003, Zimbabwe's economy has been characterized by (i) severe shortage of foreign exchange, (ii) high and rapid increase in the inflation rates, (iii) shortage of basic commodities (fuel, transport, maize meal, bread, etc) in the market. As result, the prices of basic commodities and services rose sharply. This affected greatly on low-income households (small-scale vendors, casual labourers and low wage workers, the unemployed). As a coping strategy, the affected households reduced the quality and quality of purchased food commodities.

The government responded to shortages and inflationary prices for basic commodities by controlling prices of all basic commodities. The aim was to maintain affordable prices. The effect was massive shortages as manufactures seized production. Consequently, the price went up affecting negatively on affordability of basic food.

1.5.7 Food security areas not addressed

The high and persistent malnutrition levels suggest that improvement in the dietary needs of the population should be one of the objectives of the agricultural and food security policies. The issue of nutrition should be addressed directly in a country's agricultural

policies beyond the need to produce adequate food. An explicit food and nutrition policy should take into account the following (a) the determinants and levels of nutritional status for the various social economic groups to identify the most vulnerable sections of the population, and (b) the most effective and cost-efficient instruments for meeting the nutritional needs of the affected sections of the population.

There little nutrition education being generally offered to household except to those who participate in nutrition programmes. The majority is therefore left out. Such education is imperative.

Food security is exclusively based on maize and wheat (for bread). There is need to come up with strategies to develop or promote other foods to diversify food security sources. Zimbabwe can grow yams and sorghum. Potatoes are an alternative to maize. But these alternatives are expensive to grow making them unaffordable for the consumers. There are no strategies in place to developed alternative foods especially improving technologies to reduce production costs.

The levels of poverty and food insecurity in urban areas are not addressed directly by any policy. It is assumed that the urban poor will benefit from controlled prices. However, when the government controls prices, parallel food markets emerge. These would have even been higher prices than the controlled prices making it worse for the urban poor. Therefore, there is need to explore the idea of establishing low cost food stores at the local council level. Government would subsidize these. The low cost food stores would ensure that those households with low incomes have access to food in cases when markets are unaffordable.

1.6 Policy learning

Since the 1980's, food insecurity due to falling per capita output of food production and recurrent droughts has been a major challenge for Zimbabwe. A number of strategies were adopted to address both chronic and transitory food insecurity and to lessen the impacts of droughts. The strategies can be put into two categories. The first were strategies adopted to stimulate increased production to improve national food security. The second type were strategies adopted to counter the impacts of droughts and to address household food and nutrition insecurity.

The analysis can be divided into three periods. In the period 1980 - 1985, strategies adopted were geared to stimulate increased food production to meet the national food security needs. This was in response to a general shortfall in national food stocks because of reduced output due to the intensification of the war of liberation during the years 1970-1980. Thus in the early 1980, the government food security strategy was for the country to be self-sufficient. This was achieved through central storage and marketing and by maintaining a strategic maize reserve in case of drought.

The thrust of the 1980-1985 agricultural strategies while well intended may not have achieved desired effects on national and household food security. This can be attributed to the agricultural policy formulation process:

a) The emphasis of the agricultural pricing policies has been upon the individual commodity and not based on a comprehensive nor cohesive food and agricultural policy. There was also no compatibility between rural development strategies and the commodity pricing strategies. The prices were administrative and politically set because

of a "knee-jerk" reaction to political pressure brought to bear by the farming community, particularly the large-scale commercial farmers.

b) The establishment of commodity prices made little reference to target or desired farm income levels. It was implicitly held that increase in crop prices would contribute to raising farm incomes and rural welfare for the communal area sub-sector.

c) Lack of a strategy focusing on rural and agricultural development based on improving agricultural productivity.

d) Subsidies and large stocks of certain commodities led to rise in the fiscal deficit that in turn led to reduction in resource allocation to agriculture services.

e) That increased crop prices have been detrimental to those households who are net buyers of food.

The 1986-90 period can be characterized, as the period of re-adjustment to focus at the household food security needs as opposed to national food security needs. This was in response to the impacts of recurrent droughts at the household level and the realization that a number of farming households were not able to meet their own food needs. Due to mounting levels of national stocks, the government encouraged farmers to diversify from food grains to non-food cash crop production to generate household income and foreign exchange earnings.

The period 1991-1995 is influenced by the economic reform or structural adjustment programme that ushered new grain marketing arrangements and the decontrol of food price controls, and reduction in food subsidies. This brought about new marketing arrangements for food flows into urban areas. The government, through the GMB, maintained control of maize marketing and pricing. The maize producer price was kept at lower than export parity. The intention was twofold, namely (a) reduce government expenditure on GMB stored maize, and (b) to reduce the cost of grain for urban households. The outcome was that farmers were heavily taxed. Consequently, farmers started to shift from maize production as discussed earlier.

During the 1990-1995 period the approach to agricultural policy changed considerably. For the first time the country articulated a framework for agricultural policy with a focus on commercialization of the smallholder sub-sector. The framework was built upon the premises that the agricultural environment needed to be improved to perform better through reduction of government subsidies, commercializing operations of agricultural parastatals, placing more reliance on market forces and the private sector, and cutting back the size of the civil service.

The consequences of the reform of macro-economic policy on the development of the agricultural sector of the economy and food security have been mixed. On the positive side, the liberalization of the foreign exchange market involving the end of foreign currency allocations and the free availability of foreign exchange for current import requirements, has facilitated much greater availability of imported farm inputs and generated a considerably greater degree of competition among the farm input suppliers. This has had a significant benefit both in terms of the prices and availability of imported farm production requirements, both capital and current items. This led to the expansion of tobacco production following the much-improved prices of 1991 led to a high level of investment in tobacco curing barns and other facilities for tobacco production. This was enhanced by the provision of a large special foreign exchange facility for tobacco growers, which encouraged a substantial volume of investment in the range of specific capital equipment items for which this facility could be used. There has also been a steady and significant

growth in investment in horticulture - particularly in the production of flowers and citrus fruits that are of a capital-intensive nature. Even smallholder farmers responded by switching tobacco and other cash crops (paprika, cotton, etc). This partly contributed to the reduction in maize production and erosion of maize stocks at both the national and household levels.

On the negative side, the need to reduce the fiscal deficit influenced the level of resources available for the basic agricultural services- veterinary, research, extension, the development of improved access to water, etc. Not much public and private sector investment went into agriculture in the post ESAP era. Some problems that arose as a result of structural adjustment in agriculture include (i) the increased cost of food that may have worsen food insecurity of many households, (ii) increased input cost particularly fertilizer prices (prices have risen by about 300% since 1991), (iii) loss of formal employment and the worsening unemployment in both the rural and urban sectors,

However, an assessment of the impact of the economic structural adjustment programme on food security situation has to take into account other factors. When the government of Zimbabwe started implementing the structural adjustment programme, this coincided with the worst drought the country has ever experienced in the century.

It is clear from the present crises that Zimbabwe's reliance on maintaining food supplies at the national levels was not sufficient to ensure food security. There is needed to have adequate reserve for imports.

Appropriate and sustainable economic and agricultural growth is key to address food insecurity and vulnerability through poverty reduction. Strategies such as direct food-aid, food-for-work and the child supplementary feeding programmes are not sustainable without economic growth and eliminating poverty in rural and urban areas of Zimbabwe. Agricultural strategies should ensure that agricultural productivity increases over time.

The country has learnt a lesson that early warning systems can be ignored. By failing to respond early, the country was not able to secure imports at competitive prices in South Africa. It had to rely on distant sources making it expensive to procure and distribute commercial grain.

It also imperative that the issues of governance be factored into policy decision-making as Zimbabwe plight was initially compromised by the international communities' indifference due to the perceived lack of rule of law and internationally unacceptable governance.

1.7 Calls for change

It is evident from the above discussion that, a drought-induced crop failure in one season turned into a massive food crisis that translated into a humanitarian crisis, is an indictment of the failed national food security policy strategies and economic development efforts of the past decade.

The above observations lead to calls to address food security differently and in a more sustainable manner. The major voice is coming from NGO' evolved directly in rural and agricultural development as they deal directly with the humanitarian crisis due to drought.

The politicians currently are focused on land reform with their belief that lack of adequate land or land in the not-so fertile zones is the major cause of food insecurity. Unfortunately,

the current political impasse and difference of opinion on the best way forward on the land reform are hampering NGO's and the government to come together.

There is scope for the government and NGO's to use empirical research and public discussion forum to address the issues at stake. This had been done in the past in the mid-1980 through the UZ/ MSU Food Security Research Project.

2 Market Development and Economic Growth

2.1 Economic growth

Since the mid-1980's, Zimbabwe's economy has been characterized by low and volatile growth, foreign exchange shortages, inadequate investment, large structural budget deficit and stagnant employment. These combined contributed to increase in poverty and vulnerability to food insecurity.

Table 5 Real Gross Domestic Product and Agricultural Product: 1990-2000 (Constant 1990 Prices)

Year	Gross Domestic Product (Z$ million)	Agricultural Production (Z$ million)	Agriculture Sector Contribution to GDP (%)	Annual GDP Growth (%)	Annual Agriculture Sector Growth (%)
1991	19349.00	3188.00	16.5	3.2	1.0
1992	19973.00	3221.00	15.3	-5.4	-23.2
1993	18884.00	2474.00	7.4	1.7	27.1
1994	19212.00	3145.00	15	5.6	7.3
1995	20293.00	3375.00	19	-1.0	-7.6
1996	20084.00	3119.00	15.3	8.5	19.8
1997	21799.00	3737.00	22.2	2.6	2.6
1998	22365.00	3834.00	19.1	1.5	4.9
1999	22711.00	4023.00	19.5	4.9	6.3
2000	23829.00	4277.00	19.4	-4.1	1.6
2001	22855.00	4345.00	20.0	1.7	4.3

Source: CSO, 2000.

The average GDP growth rate during the 1980s was 4 percent. However, it has been erratic in the 1990-2000 period (Table 5). The percentage decrease in 2002 is estimated at 15 percent. The decline is consistent with the poor performance of the various economic sectors. The key ones are mining and agriculture. The former contributes 4-6 percent of the GDP, 4.0 percent of workers in formal employment and 15-20 percent of export earnings. It declined by-9.0 percent in 2001 and a further 5 percent in 2002.

There is strong positive relationship between the performance of the agricultural sector and the rest of the economy. Over the period 1990-2000, the agricultural sector grew by an average 4.7 percent per annum. During the drought years of 1992 and 1995, the real growth rate for the sector declined by –23.3 percent and –7.6 percent. Reduced agricultural output in the two years corresponds to negative GDP growth rates of –5.4 percent and –1.0, respectively.

Export earnings declined from US$3.1 billion in 1996 to US$2 million in 2001 and to below US$1.00 billion at end of 2002. The decline is partly due to the fall decline in the export prices. Exports are concentrated on a few commodities (tobacco, cotton lint, horticulture, gold, etc) resulting in high risk of fluctuating foreign earnings. For example, tobacco alone accounts for about 25 percent of the total value of exports and about 60 percent of the total value of all agricultural exports. As a result fall in export earning; the Balance of Payment deficit ballooned from US$190 million in 1999 to US$1.3 billion in 2002. This is why the country did not have adequate foreign currency for food imports.

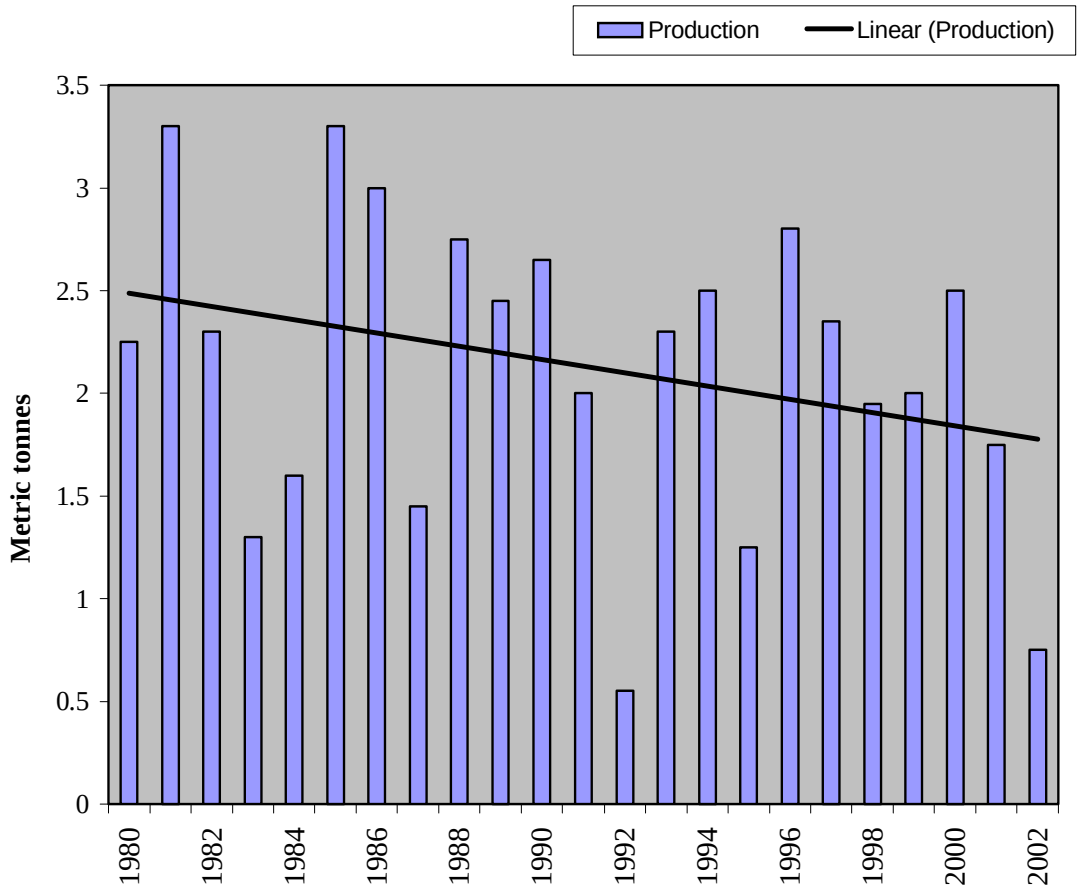
A number of factors contributed to the decline of the economy. Prior to 1991, economic growth was limited by low level of domestic and foreign investment and a lack of investment incentives and opportunities caused by (i) import and foreign exchange controls, (ii) restrictions on capital and dividend remittances for foreign investors, (iii) control of agricultural pricing and marketing and (iv) a high budget deficit leading to large demand for domestic borrowing. The latter contributed to high real interest rates and crowded out of credit to the private sector. Between 1991 and 1995, Zimbabwe implemented an Economic Structural Adjustment Programme (ESAP) that entailed removal of the above constraints. The failure to tackle the huge and rising fiscal budget deficit, partly due to delays in relinquishing parastatals and the 1992 drought, checked the success of ESAP. As a result, the country failed to sustain higher levels of investment and growth, thereby improving public welfare.

Lack of substantial inflow of external investment and the continued poor economic performance in the post-ESAP era, leading to reduced domestic investment and closure of firms, and the reduction in public expenditure led to job losses. Salary and wages of those in employment did not keep pace with inflation. The steep increases in school fees, hospital charges and removal of subsidies on basic food items (maize, milk) under ESAP further eroded incomes. All combined plus the droughts of 1992 and 1995 affected adversely on the livelihoods of both urban and rural population. Poverty increased significantly. In the mid-1990s, over 60 percent of Zimbabwean households fell below the national poverty line A study by FEWS Net and Consumer Council of Zimbabwe in 2001 (FEWS Net/CCZ, 2001) reported that 70 percent of the Harare population fell below the poverty datum line of Z$17 000 (about US$250) per month). Since 1997/8, Zimbabwe has therefore been experiencing a socio-economic crisis resulting from the macroeconomic instability and its negative impact on the population's livelihood. Loss of donor support, in 2000, due to the unstable political environment (violence and absence of the rule of law) and the land reform compound the problem.

2.2 Production trends of major food crops

Maize, sorghum, pearl millet, finger millet and wheat make up the food grain crops in Zimbabwe. Figure 1 shows the trends in aggregate grain production between 1980 and 2002. The fluctuations in production reflect the vulnerability of Zimbabwe to climatic changes. In 1991/1992 and 1994/1995 agricultural seasons, production was lower than the preceding seasons due to drought. The 1997/1998 production was destabilised by Cyclone Eline that affected the Eastern and Southern parts of Zimbabwe resulting in reduction in crop yields especially sugar, maize, seed cotton and wheat.

Figure 1 Aggregate grain production



Source: USDA, 2003. Food Security Assessment, February 2003

Maize and wheat (for bread) are the country's food security commodities. Maize production, generally, has been fluctuating over the years at both national and farming sub-sector levels (Table 6). Appendix 3 gives statistics for wheat and sorghum. The total crop area of both the small-scale and large-scale commercial farmers declined the past five years (Tables 7 and 8). In the late 1980's and early 1990's, the commercial farmers turned increasingly away from maize, cotton, and oilseeds to tobacco and horticulture, the two crops whose price and marketing were not controlled by government.

Table 6 Maize production, 1990/91-2000/01

Growing Season	Communal Sector			Commercial Sector			National Production
	Production	*Area*	*Yield*	*Production*	*Area*	*Yield*	
	(mt)	(ha)	(t/ha)	(mt)	(ha)	(kg/ha)	(kg)
1990/91	1019300	926200	1.10	566500	175000	3.24	1585800
1991/92	115200	728000	0.16	245800	153000	1.61	361000
1992/93	1133600	1040000	1.09	878250	198000	4.44	2011850
1993/94	1313800	1269200	1.04	1012400	232000	4.36	2326200
1994/95	399400	1209200	0.33	440200	188700	2.33	839600
1995/96	1687000	1330000	1.27	922000	205000	4.50	2609000
1996/97	1453800	1483000	0.98	738370	157100	4.70	2192170
1997/98	727550	1057000	0.69	690480	166800	4.14	1418030
1998/99	845300	1262000	0.67	674260	184400	3.66	1519560
1999/00	1240000	1210000	1.02	908110	206700	4.39	2148110
2000/01	993940	1084100	0.92	482300	139000	3.47	1476240

Sources: Ministry of Agriculture: Agricultural Statistical Bulletin 2002

Table 7 Trends in land under crop production in large-scale farming sub-sector

Year	Total Area (ha)	Area Under Crops (ha)	Change in area under crops	% change in area under crops	Reference
1994	11083029	498512	27145	6	CSO, 1994
1995	11094874	464014	-34498	-7	CSO, 1996
1996	10997342	494543	30529	7	CSO, 1996
1997	10793012	488261	-6282	-1	CSO, 2001
1998	10405801	469652	-18609	-4	CSO, 2001
1999	9827102	450001	-19651	-4	CSO, 2001
2000	9700700	442665	-7336	-2	CSO, 2001
2001	8737523	376335	-66330	-15	CSO, 2001

Sources:
CSC, 1990. Crop tabulations. Time series master data set. Unpublished.
CSC, 1994. Crop tabulations. Time series master data set. Unpublished.
CSC, 1996. Crop tabulations. Time series master data set. Unpublished.

Table 8 Trend in crop area in communal farming sub-sector

Year	Area Fallow (ha)	Area Under Crops (ha)	Change in area under crops (ha)	% change in area under crops
1996	280274	1996143		
1997	274474	2017966	21823	1
1998	503276	1645988	-371978	-18
1999	Not available	1986601	340613	21
2000	366351	1838270	-148331	-7

Source: CSO, 2000. Agriculture, Livestock Survey in Communal Lands. CSO Publications.

In the communal sector, in addition to the decrease in maize area, overall output has been erratic (Table 8). Fallow area generally has been increasing. Farmers have been leaving their land to fallow, as they could no longer afford to buy the inputs to use to cover the whole cropped area.

2.3 Agricultural trade, grain reserves and food aid

2.3.1 Agricultural trade

Since the late 1980's, the agricultural sector has been the largest single source of export earnings, contributing 40% to 45%of total exports in most years. Tobacco is the major single largest foreign currency earner even in serious drought years, such as in 1992 (Table 9).

Table 9 Principal agricultural exports: 1990-2000 (Z$ million)

Commodity	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Flue-Cured Tobacco	718	185	2071	2240	2856	3818	6662	6342	9918	22668	23947
Horticulture	84	192	214	328	238	859	822	2475	2258	2796	2567
Cotton Lint	211	216	139	182	482	393	663	1314	3525	3709	4906
Sugar	160	169	34	460	763	659	1106	1032	1390	1644	1725
Beef	18	37	77	157	164	211	200	274	755	1107	1767
Coffee	147	80	59	33	102	230	263	435	725	562	722

Source: Ministry of Lands, Agriculture, and Rural Resettlement, various years

There was an upsurge in tobacco exports following the economic structural adjustment programme (ESAP) in 1991that offered incentive for investment in tobacco production. Similarly, horticulture and beef exports increased in the post-ESAP as farmers diversified from maize production. The expansion in cotton production and the liberation of the textile and lint market led to increase in lint exports.

2.3.2 Strategic grain reserve

Before 1991, Zimbabwe maintained a strategic physical grain reserve aimed at covering six- month maize supply in the event of production shortfall. At its peak in 1986, the strategic grain reserve stood at close to 2 million metric tonnes. This was enough to cover at least nine consumption months. The strategic grain reserve policy and its size were partly responsible for the massive fiscal deficit as the government was responsible for financing the reserve. It is because of this cost and the attendant downstream problems such as inflation, high government borrowing in the domestic market, etc. that led to the change in the strategic grain policy. It was unsustainable. The strategic grain reserve (SGR) since 1990 has been maintained at around 500 000 metric tonnes. The desirable level is considered to be 700 000 metric tonnes (SADC Regional Early Warning, 2002).

The strategic grain reserve was also eroded by the fall in production as farmers switched from maize production. It was also reduced through withdrawals for drought recovery and other social protection strategies. This erosion can be partly blamed for the current situation in which the country did not have adequate grain reserves to counter the 2002 drought induced deficit.

The strategic grain reserve cushioned the country from the effects of the droughts in 1987, 1992, and 1995. Until the current production shortfall, the country did not need massive inflow of food aid. Accordingly, food aid did not have any major impacts on food supplies and prices in Zimbabwe.

2.3.3 Commercial grain exports, imports and food aid

In the 1980s, Zimbabwe exported surplus maize to deficit countries mainly Malawi, Mozambique, Zambia and Ethiopia. Donor purchased Zimbabwe maize for aid to food deficit African countries through triangular transactions in which Zimbabwe obtained wheat.

Table 10 shows the pattern of maize exports. In 1990, the country exported 731 000 tonnes and 407 000 tonnes in 1991. This exposed the country to food insecurity in 1992 when there was a drought. Exports resumed in 1994 at substantial levels.

Table 10 Zimbabwe's maize exports 1990-1994

	Time Period	Exports (tonnes)
1990	Calendar Year	731,000
	January - March	463,000
	April - December	268,000
1991	Calendar Year	407,000
	January - March	187,000
	April – June	95,800
	July - December	124,200
1992	Calendar Year	10,000
1993	Calendar Year	195,000
1994	Calendar Year	546,000

Source: Central Statistics Office, 1996).

Table 11 gives the flow of commercial food grain and food aid in the period 1992-2001 and their contribution to the aggregate food availability. Wheat imports constitute the major component of the grain imports as the country is not self sufficient in wheat production.

Table 11 Commercial grain imports and food aid ('000 metric tonnes)

Year	Grain Production	Root Production (grain equivalent)	Commercial Imports (grains)	Food Aid receipts (grains)	Aggregate availability of all food
1992	675	52	598	896	2 649
1993	2 249	57	589	16	2 604
1994	2 622	58	87	5	2 600
1995	1 225	64	119	3	2 167
1996	2 900	65	461	1	3 289
1997	2 435	68	218	0	2 743
1998	1 883	69	286	82	2 553
1999	2 016	72	335	5	2 980
2000	2 594	74	120	5	3 198
2001	1858	74	145	0	3 109

Source: USDA, 2003 Food Security Assessment

Food aid in 1992 and 1998 were substantial due to the droughts in 1992 and 1997/98 (Table 11). The levels of commercial imports in 1992, 1993, 1996, 1998, and 1999 are indicative of the capacity that the country had to import grain to supplement domestic production. The levels of imports in 1999 were not justifiable, as the country did not need to import so much. This arose from the failure of the Grain Marketing Board to offer adequate prices to the farmers in 1998 and 1999. The GMB also did not make much effort to collect grain that was offered for sale as alluded to in the preceding section.

2.4 Rural non-farm activity

Opportunities for rural non-farm employment and income generation include industries that would utilize local labour and raw materials. These industries could be in collection and assembly or processing. The latter category may include grain processing, oil extraction, fruit, and vegetable assembly and processing. Any by-products could be used in the

manufacture of stock-feeds or fed directly to animals or chickens. This could be more important in semi arid areas where livestock fattening schemes could result in more income from sales of higher quality stock.

Projects could have been undertaken to construct and maintain roads, dams for irrigation and conservation works to improve agricultural productivity. These have been undertaken intermittently under the public works or food-for-work programs in response to food shortages. In most cases, even during drought times, they have not been sustained due to lack of funds.

The rural non-farm economy has not been able to create any significant employment and incomes. There has not been much injection of non-farming income into rural areas that would have created demand for both industrial and agricultural products. A number of constraints make businesses non-viable, namely, price controls, transport, inadequate rural infrastructure, and lack of telecommunications facilities.

2.5 Urban-based and industrial activity

Low level of investment and a dearth of investment opportunities that constrained economic growth in the 1990-2000 decade led to high unemployment levels. Most of the poor who live in urban areas are unemployed and the rate has increased due to high retrenchment rate as companies closed due to economic hardships. Consequently, the number of new entrants into the formal job markets outnumber available and newly created jobs by 100 000 – 150 000 persons per annum. The informal sector, which is expanding rapidly, absorbs 10 000 –15 000 of the new entrants into the job market. Unfortunately, the informal sector has low incomes, which puts the new entrants into the poor category.

Urban incomes from both formal and informal employment have been and continue to be highly eroded by the steep increase in prices of basic commodities (maize meal, sugar, bread, paraffin, electricity, cooking oils, etc) and services (health, transport). Increase in fuel prices (70% in June 2001; 90% in March 2003 has had the greatest impact on the wages and expenditure.

Until the government, in January 2003, affected a price freeze on basic commodities, prices of basic commodities, such as maize-meal, cooking oil, cabbages and salt toothpaste have increased in price by over 150 percent over the six-month period from June 2002. The price controls have led to black marketing and the concomitant high prices. The impact has been greatest, in absolute terms on the food security of the urban poor whose income cannot keep up with this price inflation. These are small-scale vendors, casual laborers and low wage workers. Many of these poorer households have reduced the number of meals per day and stopped spending on certain goods (non-essential food items) and services (such as education, health)

The urban population is finding it extremely difficulty to obtain food. There no schemes that offer food at subsidized prices. There are reported cases, though not verified, of political parties either directly distributing food and sugar, flour to party members or order regular shops to sell basic commodities at controlled prices.

The remittances that the households in communal lands have been receiving over the years have been decreasing due to increased economic hardships of the people who live in towns. The urban people have been finding it difficult to have enough food let alone to

find money to send to their relatives in the communal areas. The flows of remittances have reversed, from urban-rural to rural-urban areas with the relatives in rural areas now supplying food to their urban relatives in a growing trend. The scale and magnitude have yet to be measured.

2.6 Increase in smallholder staple and cash crop production

With the onset of black majority rule in 1980, the new government committed increased resources to the agricultural sector to enhance production of both cash and food crops by the large scale commercial farmers and the small farm subsectors. Particular attention was paid to the smallholder farmers in the Communal Lands. The strategies adopted included (a) incentive producer prices for food and cash crops, (b) improvement in institutions serving farmers, particularly credit, extension, and agricultural research, (c) improvement in infrastructure servicing farmers, that is road networks, crop collecting and marketing systems, input delivery systems. The outcome and impact of these strategies are discussed by Rohrbach, (1988), Stanning, (1988), Mudimu, (1991), Mudimu and Maumbe (1992); Eicher and Rukuni, (1994). Eicher and Rukuni (1994) have termed the success, particularly the increase in output of maize and cotton, as Zimbabwe's smallholder revolution.

Maize production and marketing by Communal Lands farmers more than doubled over the period 1980-1986 compared to the 1970-80 period. Area under maize production rose from six million hectares in 1979/80 to 1,2 million hectares in 1980/81. Maize output rose from 0,8 million tonnes in 1979/80 to 1,1 million tonnes in 1980/81 and 1,8 million tonnes in 1985/86.

In 1985/86 the Communal Lands farmers supplied 47 percent of markrted maize compared to 4,7 percent prior to 1980 (Stanning, 1985). This increased to 65 percent in 1989/90. Due to the guaranteed price and market for small grains, marketed output of finger millet rose from 386 tonnes in 1983/84 to 12 500 tonnes in 1985/86 marketing year. Marketed output of pearl millet increased from 4 200 tonnes in 1983/84 to 40 000 tonnes in 1985/86. From 1985 to 1989 stocks of small grains accummulated to an equivalent of five years of supply. In 1989/90 and 1990/91 the government had to reduce support for small grains production by not making the GMB the sole purchaser. This was because of lack of end utilisation the stocks had become costly to maintain.

Cash crop production by Communal Lands farmers increased dramatically since 1980. Total cotton production increased from 160 thousand tonnes in 1980 to 321 thousand tonnes in 1985 and to 350 thousand tonnes in 1990. Communal Lands farmers, in 1987-89, contributed 50 to 55 percent of marketed cotton compared to 7 percent in 1980. In 1989/90, 99 percent of the marketed sunflowers came from the subsector. With policy refocused on smallholder, this subsector made significant strides in total production increase. By 1991, this subsector accounted for more than 50% of maize marketed through the formal system, more than 60% of cotton and the bulk of small grains and sunflower and groundnuts. In total the subsector accounted for about 18 percent of the total value of marketed agricultural produce and about 15% of the foreign currency earned by the sector (CFU, 1991).

Communal lands maize production is highly unstable as it is dependent on stable and good rainfall. For example, in the 1992 and 2002 droughts, Communal Lands maize output fell by more than 50 percent (FEWS NET, 2002).

On the period 1998/1999-2000/2001, it is estimated that tobacco and paprika production, by smallholder farmers expanded by more than 50 percent.

2.7 Environmental change and natural resource management

2.7.1 Environmental and technology linkages

The major factor contributing to low production and incomes across communal areas are the agro-ecological conditions where the farming households are located. Approximately 70 percent of Communal Area lands is located in Natural Regions III, IV and V which are considered marginal for agricultural production based on crops due to:

a. Low soil fertility

b. Low rainfall, average 400 - 500mm

c. Severe dry spells during the rainy season

d Fragile ecology

Although improved production technologies applicable to these areas are available, these have been more productive and profitable in the high potential zones, Natural Region IIa and IIb. This is particularly the case with maize. Current technologies for sorghum, millets, and groundnuts do not give a favourable return to production of these crops in the low rainfall areas. This is because the technologies (seed varieties, fertilizer recommendation) do not result in substantial yields compared to technologies available for maize in the same agro-ecological area (Mudhara, 1988). Mudhara (1988) observed that small grains out perform maize only in severe dry spells and drought conditions. Thus, farmers are better off producing maize for food security.

2.7.2 Environmental change and degradation issues

Environmental degradation attributable to past and current landuse are exerting pressure on the sustainability of the land resources to support food food security, incomes and improved welfare. Several studies have calculated the extent of the environmental degradation due to past agricultural activities (Table 12).

Table 12 Indicators of environmental degradation in communal lands

Reference	Variable and factor	Magnitude
Elwell (1983)	Soil loss due to sheet erosion from rainfall runoff (November to March)	50 - 100 t ha^{-1} yr^{-1}
Vogel (1992)	Soil loss in cropped lands in average rainfall season Soil loss in bare uncropped lands (bare fallow) Sustainable soil loss	6 - 8 t ha^{-1} yr^{-1} 30 - 90 t ha^{-1} yr^{-1} 5 t ha^{-1} yr^{-1}
Stocking (1986)	Soil loss in pasture lands Soil loss in cropped lands	75 t ha^{-1} yr^{-1} 50 t ha^{-1} yr^{-1}
Whittlow (1988)	Erosion in Communal Areas: Seriously eroded Moderately eroded Heavily eroded	 26.9% 32.5% 8.5%
Deforestation	Due to arable land clearing for agriculture	
Whitsun Foundation 1988)		74 000ha yr^{-1}
Touche Ross (1992)		100 000ha yr^{-1}
World Bank (1994)		60 000ha yr^{-1}
	Annual Average 1981-90	0.7% of arable
Wood Demand Hosier (1988)	 Fuel Construction	Mil tonnes yr^{-1} 5.36 1.49

Source: Mudimu (1996)

The environmental costs are (i) poor productivity of the grazing land; (ii) poor productivity of the arable land; (iii) loss of time for agricultural activities; (iv) loss of animal in a drought season. Over-grazing both directly threatens the supply of livestock products and indirectly threatens food production by imperiling draft animals. A resultant impact of overgrazing is reduced potential for livestock production and therefore the loss in economic value and value addition that could be generated from livestock production. With over-grazing, the productivity of livestock is reduced. There is evidence that cattle productivity is characterized by (i) low birth rates, (ii) low growth rates, and (iii) generally poor condition at maturity. Poor growth rate has contributed to shortage of draft animals are the source of farm power used for plowing and cultivation. Shortage of draft power results in delayed planting leading to low yields.

Some Communal Areas no longer have any natural forests. Wood fuel is now a problem with women having to walk tens of miles to gather wood. This is vital time medal in agricultural activities is now being lost.

The above suggests that there is need to reduce stress on land use in Communal Lands. This is vital for continued productivity of the land resources and their capacity to provide for household income and food security in both the medium and long-term. Unfortunately, there are several factors that make it difficulty to influence changes in land use. These are: (a) population increase and the resultant demand for arable and grazing land; (b) levels of poverty (as measured by low income, food insecurity and inadequate resource endowments) that propel households to use the land more extensively with minimum investment in conservation practices and (c) the general macro-economic performance of the economy that makes agricultural land use and exploitation of the natural resources an assured means of survival and (d) impact of increased demand on land resource on local institutions for regulating negative resource uses.

2.7.3 Population increase, concetration and demand for land versus agro-ecological factors

Over a 30 year period (1961/62 to 1991/92) the number of households increased by 284 percent (Table 13). Increase in human population was matched by increase in livestock population. Between 1961 and 1991 livestock population (cattle, and goats) increased by 157 percent; cattle by 124 percent and goats by 220 percent. The increased would have be much higher were it not for the 1986/87, 1991/92 droughts that resulted in a loss of up to 1 million cattle. These increased the demand for arable and grazing lands. Land under cultivation increased by 270 percent. Expansion was into woodlands and grazing lands. The consequence has been increased soil erosion, overgrazing and deforestation.

Table 13 Trends in land use in communal lands, 1961/62 -1991/92

Variable	1961/62	1981/82	1991/92	% change 1961-91
Households No. (million)	0.390	0.950	1.5	284.62
Land base (million ha)	13.5	16.35	16.35	21.11
Cultivated area (million ha)	1.15	3.5	4.25	269.57
Grazing area (million ha)	12.35	12.85	12.10	-2.02
Livestock. (million)				
Total	2.70	4.70	6.91	
Cattle	1.8	3.2	4.04	
Small stock	0,9	1.5	2.87	
Ratios:				
Grazing ha/livestock	4.4 : 1	2.7 : 1	1.7 : 1	
Grazing ha /cattle head	6.9 : 1	4.0 : 1	3.0 : 1	
Grazing ha/small stock	10.7 : 1	3.7 :1	2.8 : 1	

Source: (Mudimu 1996)

2.7.4 Common property issues

Resorce ownership is invested in the society or the community. Resource use and individual rights (over land use, water, grazing lands, natural wood lands) are governed by culture and unwritten customary law. In the period prior to mid-1970s, resource use and management were governed by communal enforcement structures based on the individual's social responsibility. Communal responsibility required livestock herders to rotate grazing of pastures. The objective was to disallow concentration of grazing in one area much to the detriment of the regrowth of the grass. Any failure to obey the societal requirements were met with social punishment. This involved being brought over to an open people's court. The embarrassment and fine were the act of enforcement.

Another form of communal enforcement was not for the chief to allocate arable land in grazing areas. Individuals were not to cultivate in the grazing areas. This enforcement through allocation has fallen apart because of the increase in population pressure. As a result, settlement and cultivation is now widespread in grazing areas.

The enforce based on social responsibility worked well in situation of plentiful pastures and little population pressure. Due to intense competition for land resources and the resultant pressure on land, the above are no longer obtainable in most communal lands.

2.8 Constraints to sustaining increased agricultural production by smallholder farmers

Low farm productivity and thus low farm income, on small farms is the result of many complex factors affecting upon the small farmer and rural communities. These factors are outlined below.

2.8.1 Technical and technological constraints

The small farm is subject to many technical factors that circumscribe the production environment and affects the ability to manipulate the enterprises of the farm.

Appropriate improved crop varieties and crop management practices (early and deep tillage, early planting, herbicides, insect control) are available for adoption by the small farmers. Large-scale commercial farmers have been able to adopt the technologies that have led to reduced per unit cost of production and increase output and enterprise profitability. Not many small farmers have been able to adapt the technology for their use as most has been developed for high-input and high managerial levels. Several factors can be attributed to this:

- The small farmers do not have the necessary financial capital required to invest in the technologies.
- The low technology adoption is because small farmers have difficulties in procuring improved seed, fertilizers and other chemicals, because supplies are limited and the farms are located farm from the supply source.
- Some technologies and husbandry practices, developed for large-scale farming systems, do not make sense for adoption by smallholder farmers. Example including early planting with supplementary irrigation, early harvesting with artificial crop drying, deep ploughing with reaper and precise input application.
- Reliance on animal draft power makes crop production inefficient. Machinery technology is not sized to suit the small farmers' production systems as well as managerial and technical skills. The machinery requires substantial capital outlay. This results in over-investment and increase in fixed costs of production. The alternative for the small farmers has been buying used equipment. However, this meant higher repair and maintenance costs and increased down time.
- Rate of technology adoption is influenced by labour availability. There are critical labour shortages at peak periods such as planting, weeding, and harvesting, in the case of cotton and soyabean.
- Generally the farmers lack knowledge, training and appropriate managerial skills to manage some of the technologies.
- Given that the small farmers operate in a situation of low income and low farm productivity, the farmers tend to be risk-averse. The farmers tend to operate to maintain basic subsistence. They avoid investing in capital-intensive production practices to avoid increasing their level of risk arising from crop failures due to dry spells and droughts.

2.8.2 Smallholder fertilizer use

As a result of various policies adopted by Government in the 1980s to expand rural infrastructure and introduction of new credit schemes, fertilizer quantities utilized by smallholder farmers increased from 24,000 tonnes in 1974/1975 to 90,000 tonnes in 1980/1981 and reached peak of 130,000 tonnes in 1986/1987. The increase in fertilizer demand was heavily dependant on availability of credit and cash from crop sales, affordable fertilizer prices relative to producer prices improved transport and distribution network that facilitated timely delivery.

Small-scale farmers account for 30% of total fertilizer consumption. Only 20% of smallholder farmers across the whole country apply fertilizer. Since the early 1990's, fertilizer sales to smallholder farmers have been decreasing. Farmers have been finding it difficult to purchase fertilizers mainly due to price increases. The following points indicate the other characteristics and factors pertaining to fertilizer use by smallholder farmers:

- Fertilizer application rates by small-scale are relatively low. There is generally lack of advice on the use of fertilizers. In most cases, farmers purchase fertilizers from traders without being given advice on fertilizers' use. This leads to under-application of fertilizers.
- Market access is a key constraint to many farmers who have to travel long distances to reach markets. Manufacturers and distributors of fertilizers are located in major centres that are quite distant from the majority of smallholder farmers. As a result, the input supply services are costly and less reliable for the majority of the farmers. This makes fertilizer unaffordable to the majority of the smallholder farmers.
- Lack of financial liquidity constraints fertilizer adoption and intensity of fertilizer use.
- Profitability determines the quantity of fertilizers used. Farmers have reduced fertilizer use due to relatively low maize prices that rendered fertilizer use in maize unprofitable.
- Fertilizer use is also risky due to low and unevenly distributed rainfall and dry spells at critical times for fertilizer application (in the first eight weeks of crop establishment).

The soils are generally of low fertility. They have to be limed to correct for soil acidity and then fertilized to correct for low phosphorus and potassium levels. Such applications on continual basis are necessary for optimal economic production of most crops, especially maize. However, investment in improved soil fertility is low due to financial constraints. The farmers use limited fertilizer quantities because it is expensive as it is not readily and locally available. Generally, with controlled maize output prices, use of fertilizers is not profitable because of the low returns to maize.

2.8.3 Financial constraints

Generally, the majority of the small-scale farmers do not have adequate working capital to finance crop production. There are no commercial lending schemes by commercial banks because the farmers are considered high risk due to low equity positions, lack of secure collateral and high transaction costs. Up to 1990, the Agricultural Finance Corporation (AFC) was the only source of agricultural finance for the smallholder farmers. As the loans were supplied and guaranteed by government, they were cheap and readily available. This

ended with AFC commercialization and government's guarantees. The AFC, later as the Agribank, started to charge commercial rates and having stringent screening.

In the 1990, most farmers financed crop production from own financial resources. Often the farmers reduced or minimized working capital requirements by reducing inputs use. Some farmers cut production by reducing area under production and maintaining high fallow levels to reduce cash or credit requirements.

In the late 1980's, some farmers observed neighbours or relatives who were financially stressed from borrowing lose their assets because they were not able to repay their debt. This has resulted in the farmers wanting to remain debt-free because of the fear of risk of bankruptcy and farm fore closures. Without adequate credit, the farmers cannot invest in productivity augmenting technologies e.g. fertilizers, chemicals for pest control and machinery.

2.8.4 Marketing constraints

Small-scale farmers face high transaction costs in the marketing of agricultural products and accessing inputs. While the main and feeder road networks are generally good, the farming areas are poorly served by external transportation systems. A number of transporters servicing the farmers have older model trucks and trailers that often break down resulting in loss of time and delays in marketing of produce. Transportation is not regular. The transport charges are high taking 25-40% of the crop value (Attwood and Takavarasha, 1995). Because of its unavailability, unreliability (due to old truck) and high cost (due to high charges) make availability of both inputs and food erratic and expensive.

Farmers taking their produce to market face considerable delays in being processed at maize and cotton depots. Both the Grain Marketing and Cotton Company pay in cheques that farmers have to cash at banks located in the main local towns. Attwood and Takavarasha (1995) observed that on average farmers spend two days marketing their produce. In situations where farmers market through traders, the farmers are limited in bargaining strength. This is due to relatively low volume of marketed output. They are restricted to being "price takers". Thus, the farmers are not in position to benefit directly from higher product prices that the markets may offer.

Marketing information is vital to sound farm management. Information package suitable for the smallholder farmers is generally not available. Low education levels and under-developed electricity infrastructure for radio and television informational systems limit the ability of the farmers to receive and utilize market information.

The high transaction costs result in decreased real incomes of households in these areas. Jayne et. al, (1990) calculated that the magnitude of the reduction in real income could be in the order of 40%. This is serious given that incomes in most of these areas are already very low.

2.8.5 Farm holding versus arable land holding

Available evidences indicate that the major factor determining total output on small-scale farms is the area under cultivation and not the available arable land. The area under cultivation is limited by various factors. One factor is that farm households do not utilize all the land because of the subsistence nature of the farm practices, where small areas of

land are required to produce subsistence food. Second, and most important, the low levels of resource endowments, especially labour, draft power and capital seem to limit the scope of many farmers to undertake large scale farm operations. Therefore, the actual area cultivated depends mainly on the level of household resource endowment and system of production.

Across the provinces, on average 11-28% of households have land holding of less than 1 ha; 45-50 % have 1.0 - 2,5 ha; 20 -25% have 2.6-4.0 ha and 12% have over 4 ha. Households with less than 1 ha of land holding do not have access to adequate operational land for crop production. Such land sizes do not allow proper crop husbandry, i.e. rotation and replenishment of fertility through fallow. Contrary to observations elsewhere, land use intensity is low due to low rainfall.

There appears to be inequality in farm-size distribution in terms of operational land holdings. The land tenure system that currently obtains does not allow for equitable land distribution through market forces or other arrangements. Some households, particularly early settlers in an area, have access to far larger land holdings than new arrivals and new households (those newly married). A sizeable proportion of the households do not have access to adequate land holding size for crop production.

2.8.6 Land fragmentation

The statistics on land fragmentation or number of parcels per farm household indicates that, in 50-60% of the households have 2 - 3 land parcels. The arable lands are generally not contiguous but dispersed. The average number of parcels is 2. Evidence suggests that farm fragmentation is a major constraint for efficient use of labour and animal draft power given the distances to be travelled which amount to unproductive use of time, thereby increasing the cost of production.

2.8.7 Reliance on and contribution of livestock to draft power

Small farmers rely on cattle for crop production. Cattle provide draft power and manure for fertilizing the crop fields. Despite the importance of cattle, their management remains highly inadequate. There is generally shortage of pastures due to over-grazing. Herd management does not follow improved management practices.

There is a direct relationship between draft animals, labour, and cropping area capacity. A minimum of 6 head of cattle is needed to have a least 2 oxen for draft power. For a 4-ox span, a minimum of 10 head of cattle is needed. Statistics suggest that up to 40% of households in Communal Lands do not have own cattle and thus have limited access to animal draft power.

2.8.8 Reliance on family labour

The small-scale farmers are heavily dependent on the family labour for agricultural production. A farm household requires at least 3 adult equivalent units to provide adequate labour for up to 3 ha of crops. Critical labour periods, namely at planting and weeding, require a minimum of 5 adult equivalent units to provide adequate labour for 3 ha.

It is observed that the average size of a farm household is 7 persons. This provides an equivalent of 2.5 adult equivalent labour units. These may just be adequate for up to 3 ha but will not meet adequately the labour needed at critical labour periods during the crop-growing season.

Most of the labour is from female household members who have other equally demanding reproduction and production task in the household. On average 8% of arable land is left fallow per agricultural season. This is due to shortage of resources, particularly labour, and draft power.
A conclusion from this section is that crop production and therefore food security in the Communal Lands are limited by natural conditions that make crop production risk, limited access to manufactured inputs and technologies due to financial constraints.

2.8.9 Agricultural policy

The macro-economic policy reforms, ushered through the ESAP had had significant consequences on the development of the agricultural sector, particularly the smallholder sector. The problem of maintaining and improving the agricultural support services has led to proposals for cost recovery and commercialization in order to fund improvements of agricultural service departments concerned. Options considered as a means of providing and financing agricultural services included improved efficiency in the use of staff and capital resources, utilization of alternative institutional structures, the implementation of greater cost recovery measures used to enhance the ability of the department to meet the needs of the agricultural sector, particularly those of smallholder farmers.

In response to requirement for commercialization, the Grain Market Board abandoned the extensive depot and crop collection infrastructure that had been developed to service the smallholder sector. This is because, without government subsidies, these were considered uneconomic for a commercially oriented GMB. This created marketing problems for farmers, especially producers with small marketable volumes. The resulting high transaction costs reduced farm income. For food deficit household, the GMB's withdrawal from crop collection points placed them at a disadvantage as they were no longer able to access affordable grain in times of need. Sighting uneconomic trading conditions, in the 1998 and 1999 marketing seasons, the GMB did not go out of its way to purchase grain from the smallholder farmers.

Initially, government retained the right to determine the maize producer, as maize remained a controlled commodity. Consequently, the government determined price became the floor price for grain traders. This disadvantaged smallholder farmers. However, a positive outcome of the uncompetitive maize price and market was that smallholder farmers started diversifying into tobacco, cotton, groundnut, and paprika production. The negative side of this was that it left the farmers exposed to food insecurity as they reduced area under maize.

The emergence of the Zimbabwe Commodity Exchange (ZIMACE) market offered an alternative and competitive market for maize, wheat, soyabean, beans, and others except tobacco and horticulture. This benefited the large-scale farmers who had the capacity and access to trade in this market. The smallholder farmers were not well disposed to participate because of limited access to information, low output volumes, and transport constraints.

The Agricultural Finance Corporation ceased to provide government-subsidized agricultural finance to the smallholder farmers. As a result, due to lack of alternative sources of finance, smallholder farmers were faced with working capital problems for input acquisition. They could not finance purchase of adequate fertilizers, chemicals, and improved seed. The increase in the prices of these inputs following the lifting of price controls resulted in a number of farmers stopping their use. Alternatively, some farmers bought smaller quantities that they applied on large land units. Consequently, these compromised the yields obtained.

The World Bank sponsored Agriculture Sector Investment Programme (ASIP), termed the Agriculture Sector Management Programme (ASMP) in Zimbabwe, was initiated in 1998 with the combined support of development agencies and donors (World Bank, European Union, DFID, etc). There were two objectives. One was (a) the restructuring and reducing of the public agriculture service provision so as offer better and more efficient services. The second was to investing in the sector to create an enabling environment for private sector participation in proving agriculture services. The envisaged outputs, particularly alternative services in extension, veterinary attention, information provision, did not materialize. The efforts were scuttled by of issues governance and land reform that re-emerged in 1999/2000. As a result, the ASMP collapsed following withdrawal of donor support.

The economic reform programme offered farmers the opportunity to invest in export-oriented enterprise, especially horticulture. This benefited the large-scale farmers who were well disposed with access to export market information, access to cheap offshore finance for the needed infrastructure investment, and access to skills and knowledge to meet the required standards. The smallholder farmers were not able to take advantage of these market developments. A negative aspect was that the large-scale farmers shifted from maize production. This partly contributed to shortfalls in maize output that in turn increased risks of food shortages in times of low rainfall.

3 Vulnerability to Food Security Crises

The nature and extent of vulnerability to food insecurity is viewed or assessed from two perspectives, namely who is currently food insecure, who is likely to become food insecure as social, economic, and political circumstances deteriorate. Table 14 is indicative of the categories of the population vulnerable to food insecurity.

Table 14 Sections of the populations currently vulnerable to food insecurity in Zimbabwe

	Individuals
Urban Sector	850 000
Unemployed	
Widowed, Divorced Separated Women	
Informal Workers	
RURAL SECTOR	5 402 000
Communal Lands:	
Unemployed	
Widowed, Divorced Separated Women	
Landless	
Commercial Farming Areas	
Farm Workers	489 000
Newly Resettled Farmers (A1 model)	650 000-775 000*

Source: Zimbabwe Emergency Food Security Assessment Report (2002); FEWS Net (2002)
* Estimated from number of household resettled under the A1 model on former commercial farms (Government of Zimbabwe, 2002).

3.1 Vulnerability to food and income security in rural areas

The problem of food insecurity in rural areas has two dimensions. One dimension is the inability of the household to produce all its food requirements because of lack of access and diminishing quality of productive resources combined with an unfavourable or highly variable production environment. The other problem relates to the inability to acquire food from the market because of inadequate household incomes and or unreliable markets that deliver food at very high prices.

The Communal Land farming sub-sector consists of approximately one and half million households, who make up about 6.0 million people or 65 percent of Zimbabwe's population. The general welfare of the majority of these households is characterized by (a) generally low crop productivity (in terms of per unit area cropped or per unit labour use) and (b) high variability in food and cash crop output (USAID FEWS, 1994). Low and variable food and cash crop output is this sub-sector is a result of a combination of separate but related factors that influence agricultural performance. These are (a) agro-ecological, (b) technological, and (c) socio-economic factors.

Approximately 75 per cent of Communal Lands are located in agro-ecological regions IV and V. These are characterized by low annual rainfall, average 500mm and 450mm per annum, respectively; severe dry spells during the rainy season; periodic droughts; and low soil fertility. Food and cash crop production is very risky. Crop productivity is generally low due to lack of appropriate crop varieties and production technologies. This is made worse by the fact that a significant proportion of the households are not well endowed with productive

resources, that is land, animal draft power, and working capital for purchasing of inputs such as fertilizers, improved seeds, draft power, transport services, etc. For example, up to about 40 percent of household do not have adequate access to animal draft power (Zindi, 1994).

Low crop output in the Communal Lands can be attributed to low productivity arising from low input use. The technologies that are currently available are expensive and to some extent inappropriate. They were developed for high input production systems obtainable in the large-scale commercial farming areas, mostly located in the agro-ecological zones II and III with high and stable rainfall.

Due to the above, households in the low rainfall areas are vulnerable to transitory food and cash income insecurity as a result of the inter- and intra-seasonal variability in food and cash crop production due to the rainfall. In these parts of the country, incidence of malnutrition and other health problems arising from malnutrition are high. In general, the rate of malnutrition across all Communal Lands is reported to be around 10-15 per cent of all children between the ages of one year and five years. In the low rainfall Communal Lands, the rate rises to around 20-25 per cent. It is as high as 30-40 per cent in such Communal Areas as Nyanga, Binga, and several areas in the Matebeleland Provinces (Rukuni and Jayne, 1995). In some of these districts, malnutrition is chronic. Research findings by the Food Security Research Project suggest that up to 40 per cent of households in the Communal Lands may be faced by chronic food insecurity. This arises from the fact that a good number of households do not have adequate resources (land, animal draft power, working capital, etc.) to produce enough food nor do they have adequate cash to purchase food available in the market.

3.2 The impact of AIDS on individuals, households, communities and the economy

At the end of 2001, UNAIDS estimated that 2.3 million Zimbabweans were living with HIV/AIDS of which 2 million of them were adults (aged 15 to 49). Of the infected adults, 1.2 million (60%) were women. Zimbabwe's adult HIV prevalence is estimated at 33.7 percent, the third highest in the world. FAO estimated that Zimbabwe lost 9.6 percent of its agricultural labour force in 2000 because of AIDS.

The quantitative impact of HIV/AIDS on communal lands' agricultural output has yet to be measured. Similarly, the cost at household level has not been quantified. The impacts and costs are described qualitatively. HIV/AIDS has the potential to reduce agricultural productivity in a number of ways. It increases the demands on a declining working population for food production. This exacerbates labour shortages at critical peak periods. As one or more productive members of a farming household succumb to sickness and eventually die of AIDS the family is gradually impoverished due to costs incurred in purchasing drugs, prescribed special foods, time, transport to and hospital among other expenses. Such costs affect the household income that is supposed to be used in getting food for the family. This threatens the household food security.

The epidemic affects sexually active individuals who also happen to be productive in various sectors of the economy. These active members tend to have strong links with communal agriculture through remittances for input procurement as well as needed investment in the sector. The epidemic kills after a along time such that by the time the victim die quite a substantial amount of expenses would have been incurred much to the detriment of the rural household. The epidemic infects in pairs there by threatening the

household heads that make crucial decision in enterprise selection. The availability of labour and the quality of labour is also affected since mostly the children would be left to do the work in the fields.

Affected individual and households are adopting survival strategies that are detrimental to good nutrition and food security as well as general health. These include the following:

- Reduction in the number of meals. This is the first strategy when food becomes scarce.
- Sale of assets: large numbers of families are selling their assets to buy food.
- Child labour: poor families in both rural and urban areas are sending their children to work as cattle herders or housemaids. In urban areas, children are used as vendors whilst in rural areas they may be used in piecework (where it can be found).
- Sex work: young females resorting to sex work as means of coping either to raise income for the family or in cases where they are left heading siblings.
- Homelessness: in all urban areas, the number of squatters has increased tremendously.

Traditionally, strong family ties had been the best social insurance against starvation in Zimbabwe. Yet, in 2002, because of AIDS, drought and deteriorating economic situation, most of the coping strategies became irrelevant, and the extended family safety net and local support networks are increasingly under pressure. For example in the past, those with money could buy maize meal at the market when their maize stocks ran out. That is no longer possible because there is very little maize meal on the market to satisfy demand.

4 Social Protection

Several approaches had been implemented to address transitory food insecurity due to droughts by both government and Non-governmental Organizations (NGOs). These are the drought relief and recovery programmes. The approaches range from drought relief, child supplementary feeding programmes, drought recovery and rehabilitation programmes for both crop and livestock production.

4.1 Drought relief: food-aid and food-for-work

The government and churches of Zimbabwe and other humanitarian NGOs initiated the Drought Relief Programme during the 1982 drought to address the impacts of the drought characterized by food shortages, general hunger, water shortages and livestock deaths at both household and community levels. Since then the drought relief programmes have been maintained, in various forms and scales or magnitude, as a means of implementing a food security strategy to households facing food insecurity caused by either (a) droughts or (b) by not being in a position to have access to available food due to lack of adequate purchasing power or non functioning food markets. The drought relief programmes has continued in the drought/mid-season dry spell prone areas mostly in the districts in Masvingo, part of Midlands and Manicaland and the two Matebeleland Provinces. They were intensified at the occurrence of subsequent droughts in 1983/84, 1987/88, and 1991/1992 and 1994/95.

There are two forms of the drought relief programme, namely, direct food aid and food-for-work projects. Food-for-work projects involve investment in social infrastructure such as road and bridge construction, environmental rehabilitation (gully reclamation) and small dam construction for water conservation, school and clinic rehabilitation and construction, rehabilitation of irrigation schemes and reforestation, and road construction and maintenance. It considered that food-for-work programmes allowed self-targeting with the needy households being the ones to enlist for work to gain access to the food.

4.2 Child supplementary feeding programmes and community nutrition gardens

Child Supplementary Feeding Programme is food and nutrition intervention initiated in response to the 1982 drought. The programmes were started initially to address the problems of malnutrition resulting from food shortages and failure of households to provide adequate and nutritious food to the vulnerable members, that is children, pregnant and nursing mothers, the aged and the disabled. . While the initial thrust was curative to redress malnutrition and its effects, the programmes have become a permanent component of the drought relief efforts. The programmes have two variations, namely (a) supply of food and (b) support for supplementary food production in community gardens to provide the community with vegetables to supplement grain that was provided through food aid. The thrust of the supplementary food production has been to provide the community with the means to prevent malnutrition.

4.3 Drought recovery programmes

The government and NGOs initiated drought recovery and rehabilitation programmes with two objectives. One was to enable communities receiving drought relief assistance to have a starting point in the production of their own food in the season following a drought. The second was to create the capacity for them to withstand future droughts. There are three main components, (a) the distribution of seed, pesticides and fertilizers, (b) provision of mechanical tillage services, and (c) cattle restocking programme.

Table15 Crop production recovery programme, 1992/93 to 1995/96

Input	**1992/93**		**1993/94**		**1994/95**		**1995/96**	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
	Metric tonnes	*Z$ million*	*Metric tonnes*	*Z$ million*	*Metric tonnes*	*Z$ million*	*Metric tonnes*	*Z$ million*
Fertilizers	180800	88.295	68895	70.664	18590	23.350	18545	2. 298
Maize seed	17504	45.080	4593	15.372	13190	38.166	15881	73.875
Groundnuts seed	1900	16.059			400	2.675	525	3.990
Sunflower seed	400	8.646					119	0.452
Millet/ Sorghum	523	1.619	4827	14.500	8590	2.640	1875	8.900
Total		259.699		100.536		66.831		39.515

Source: Ministry of Agriculture, 1995

4.4 Mechanical and ox tillage assistance

Mechanical tillage assistance for drought recovery was initiated to assist drought-affected communities to acquire the means to prepare land for crop planting. The assistance was aimed at giving an opportunity to affected households to prepare their lands timely so as to benefit from a reasonable length of the crop growing season and minimize labour bottlenecks at land preparation and planting. The assistance was in the provision of mechanical tillage. In some cases, the assistance was provided at subsidized rates to enable the beneficiary to afford the service as the cost of hiring was beyond their means.

Both government and the NGOs to assist beneficiaries to recover from loss of cattle due to drought and disease outbreaks, mostly anthrax, initiated the Cattle Restocking Programme. Christian Care, Lutheran World Federation, Plan International and others NGOs came up with the restocking programme to provide female breeding stock, heifers, to enable affected beneficiaries to rebuild their herds. The government through the Department of Veterinary Services invested close to Z$25 million on cattle holding pens, livestock water points, and fodder banks and livestock demonstration centres.

4.5 Drought levy

In response to the 1992 and 1995 droughts, the government introduced a drought levy payable by all employees in wage and salaried employment to partly finance its drought relief and recovery programmes.

4.6 Grain loan scheme

Following the 1994/95 droughts, the government instituted a grain loan scheme to allow households to gain access to the grain as drought relief. This departed from the previous drought relief approaches based on food transfers through either food-for-work programmes and/or direct food handouts. A major drawback with the direct food relief approaches was identifying the needy households so as not to offer a blanket programme. This resulted in administrative problems that raised cost of implementing the programmes as well as created potential political discourse from households and regions not participating. In the end, the tendency was to make the drought relief a universal food aid programme. The system was perverted by special interest groups' intervention that expanded the number of households for their own benefits. Another drawback was that it was considered that direct food aid provided disincentives to households and caused misallocation of resources and dependency.

While the food-for-work programmes were used for infrastructure rehabilitation and developmental purposes, only a small number of these programmes had some successes. The weakness of these programmes centred on planning and implementation problems of some of the projects. In a number of cases, the projects were poorly planned or supervised and short-term in nature. Implementation had been dependent on inexperienced or poorly trained local administrators or leaders. Coordination of the projects has been weak and there was no effective monitoring system. Another criticism was that the food-for-work programmes took labour out of the individual household. The public project activities did not contribute to enhancing increased productivity at the individual household level.

The departure from the direct food aid programmes was necessitated by several factors, namely (a) to reduce the cost of administration, (b) to reduce the cost of the food aid programme. It was also intended to enhance targeting of those households in need. The grain loan scheme was therefore conceptualized as allowing household to borrow grain according to their requirements and capacity to repay. This way those households with means to access food from the market and other sources were not likely to borrow from the grain loan scheme. The grain loan scheme was seen as making the household accountable for the grain borrowed rather than households seeing the food aid programme as a generalized benefit courtesy of the good will of the government.

Table 16 Zimbabwe grain loan scheme: number of applicants, beneficiaries and costs

Province	No. applicants	Grain requested (Metric tonnes)	No. beneficiaries	Grain Supplied (Metric tonnes)	Total cost of Grain Z$ million
Mashonaland West	672438	73 162	579 486	25 436	45.80
Mashonaland East	581689	73 137	250 086	29 876	54.71
Mashonaland East	665799	72 565	653 840	32 435	59.27
Midlands	1083386	134 641	622 251	57 161	102.56
Manicaland	958059	112 811	565 550	44 769	81.04
Masvingo	1061065	107 884	401 563	38 579	69.89
Matebeleland North	618349	74 967	134 533	19 458	36.79
Matebeleland South	434791	56 752	83 031	56 752	33.25
National Total	6075486	705 939	3 290 339	265 991	483.34

Source: Masanzu & Makaudze, 1996

The grain loan scheme became operational in the mid-1995. The direct effect was to make grain available and therefore assuring food security following the 1994/95 droughts. Table 16 gives the number of households who applied for and benefited from the grain loan. 6 075 486 persons registered to receive 705 939 metric tonnes of grain as loan. A total of 265 991 metric tonnes of grain was loaned to 3 290 339 persons at a total cost of Z$483. 34. The demand exceeded the capacity of the scheme. The grain loan scheme was partially paid for through a drought levy that the government imposed on salaried and wage earning employees.

4.7 Community initiated social protection

Some traditional leaders have advocated for a communal approach to food insecurity at the local community level. This involves establishing a community field under the auspices of the chief or land allocated by the chief (Zunde Ramambo or Chief's Field). The community contributes labour. The harvest is stored as a food bank to be release to members of the community in times of need. One argument against this is that the labour to be contributed would be taken from labour for individual household crop production. Another argument is that the food so created my not be large enough to meet food shortages that may face the whole community.

4.8 Adequacy of protection

Two categories of the population are vulnerable to both types of food insecurity due to extremely low rainfall or severe dry spells in the rainfall season. The first category are nearly all the households in the Communal Lands located in agro-ecological regions IV and V characterized by low annual rainfall, regular severe dry spells during the rainy season and periodic droughts in the low rainfall areas. As food and cash crop production area very risky, households in these regions would need social protection in the event of rainfall failure. . These are approximately 75 per cent of Communal Lands with a population of close to 5 million. The scope of social protection needed is huge needing careful preparedness, planning, and management.

The second category is households with limited means to produce adequate food. These are households without adequate land, draft power, livestock, and limited access to agricultural inputs. They constitute 30-40 percent of all households in all farming areas. These are households dependent on market surplus from fellow farmers. Regular food-for-work programmes would be ideal. These could be incorporated into local development programmes.

Households likely to experience transitory food insecurity include:

- Households formerly employed as workers in the large-scale commercial farming sector without access to own land for food production.
- New farmers still to master the skills of farming
- Farmers who have relocated to environments that they are not familiar with.

These need support to be established and be able to produce own food.

Those in need of regular support in normal times due to special circumstances they are in include:

- Children in the 6-60 months age group prone to malnourishment.

- Child-headed households
- Households headed by the elderly taking care of orphans
- Elderly persons without support from relatives either because they never had families or who lost support from offspring due to HIV/AIDS-related death

It is estimated that about 40 percent of the urban population are extremely poor, constantly face hunger and destitution. They need regular social protection in the form of subsidized food and regular programmes such as food-for-work. Currently, no such programmes exist. The number of malnourished 5-60 months babies calls for a permanent child supplementary feeding programmes

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Appendix 1: Terms of Reference

Background

The Forum for Food Security in Southern Africa aims to support strategic thinking on food security issues in Southern Africa, and in particular to identify and discuss policy options to achieve food security in the region over the medium to long term.

It will, between January and August 2003, provide a forum in which key policy stakeholders from government, donors, NGOs, civil society, private sector, and researchers can discuss the issues.

The work will focus in five countries — Lesotho, Malawi, Mozambique, Zambia and Zimbabwe — representative of different food security contexts across the region.

The project will produce Policy Papers and host a combination of moderated electronic discussions and workshops on key policy options.

It is funded by the UK Department for International Development and implemented by a consortium of institutions in the UK and Southern Africa.

General purpose of Country Issues Papers

The aim is to set out the food security issues in each of the focus countries, as seen by policy stakeholders in the country, to reflect whatever range of opinion may exist. The papers will then form the basis of subsequent discussions of both policy options for the country as well as the cross-cutting themes that apply across the region.

In particular the papers will cover:

- The food-related crisis of 2002/03. How is the crisis defined?
- The longer-run food security issues, as seen by different policy stakeholders; and,
- The causes of the current emergency and of food insecurity in general.

It will be important to reflect the views of different stakeholders — including government, donors, NGOs, and civil society including researchers, private sector and commentators. There may be important differences of opinion on the nature of the problem and on causes. While the paper may argue for a particular interpretation, it should refer to other arguments and identify points of divergence in debates. Where the resolution of debates is impeded for lack of data or detailed analysis, this should be noted.

Food security is seen as being ‘where all people at all times have access to safe and nutritious food to maintain a healthy and active life’ (FAO 1996). Although this definition sets food security at the individual and household level, achieving this is associated with issues with national level production, marketing and trading of foods. Consideration of food security thus has to embrace both micro and macro issues.

From a workshop held at the Overseas Development Institute in July 2002, four cross-cutting themes were identified, namely:

- *Human vulnerability*: how has the vulnerability context for poor people in the region

changed over the last decade; what are the implications of this for supporting poverty alleviation and food security;

- *Market-based development of agricultural and food economy*: what are the prospects and key needs for facilitating participation in input, output, finance and labour markets in the region;
- *Social protection*: what combination of macro and micro safety net interventions are needed to ensure secure access to food for the very poorest; and,
- *Policy processes*: what are the options for delivering assistance in situations of limited institutional capacity.

Details of the issues that arise under each of these themes are set out in the Appendix to these terms of reference.

Specific tasks and outputs

Country papers will be in the region of 8,000 words, not including any annexes.

Papers do not need to provide detailed documentation of the facts and figures of the current food crisis as much of this is available from other sources. Rather, papers will set out priority food security questions in the country concerned, and the range of opinions on them.

In an annex, papers should log the major current government, donor and NGO policies and programmes relevant to food security. This log will include:

- Brief summary (250-500 words) of each initiative, including historical origins and rationale.
- Full citations for relevant documents – both formal policy statements and project documents, and relevant reviews and critiques of the initiatives.

Total days: up to 15 days per paper

Timeframe: completed by 09 March 2003. A draft version produced by 25 February would allow comment and some revision.

Thematic questions for Country Issues Papers

The country issues papers should address some or all of the following issues, as applicable to particular countries:

1. Vulnerability to food security crises

Points to consider include:

1.1 The effects of slow economic growth and macroeconomic problems on the livelihoods of the vulnerable, as seen in the availability of jobs, opportunities to open small businesses, returns to economic activities, remittances; costs of basic goods and of public services (e.g. user charges);

1.2 Slow growth, stagnation or decline in agricultural productivity with consequences for farm incomes and domestic supply of staple foods. Key factors behind such problems, including factors external to farmers — reduced government services in extension or veterinary assistance, increased cost or reduced availability of inputs such as fertiliser, reduced access to credit, falling prices for output or difficulties in selling crops — and problems within rural communities, including lack of land and sub-division of plots, and loss of labour to HIV/AIDS (see below);

1.3 Environmental change and natural resource management, including long run decline in soil quality, deforestation, reduced common property in grazing, woodlands, water bodies owing either to increased population or to less access as rules change or become less effective;

1.4 The impact of HIV/AIDS on individuals, households, and communities, including the financial costs of treatment, time spent caring for the sick, rising dependency ratios in households and loss of active workers; and,

1.5 Problems that have arisen from public policy and governance, see below in 3.

2. Development of markets and economic growth

Assess changes in terms of:

2.1. Agricultural production

- The extent to which farmers, and in particular smallholders, have been able to increase their production of staple foods and higher-value cash crops. Problems encountered in:
- Markets and their functioning, now that the state has withdrawn from supplying many services in favour the private sector — for inputs, finance, output, labour, land, and water;
- The provision of additional (and often public) services in extension, veterinary attention, information, storage, etc.; and,
- Lack of appropriate technology for, for example, rainfed cropping in the sub-humid and semi-arid margins.

2.2 Agricultural trade, grain reserves and food aid

- Changes in rules and restrictions on trading across national borders. In particular, note effects on farmers living close to borders. Where increasing cross-border trade has been permitted, has this encouraged the entry of large grain traders into the markets? What has been the effect on net flows of food, and on prices in the country?

- The policy for holding of national strategic grain reserves, and how has this changed;
- The pattern of food aid shipments and their impact on local food supplies, and possibly on local food prices.

2.3 Rural non-farm activity

- The development of rural non-farm opportunities, and the extent to which the rural non-farm economy been able to create jobs and incomes. To what extent have the poor taken up very marginal rural non-farm activity to cope and survive?
- Key factors affecting opportunities in the rural non-farm economy?

2.4 Urban-based and industrial activity

- The ability of the urban economy to provide jobs and incomes. Effects on urban poverty, levels of rural-urban migration and on remittances to rural areas.
- The ability of the urban poor to obtain food. Factors affecting this, including jobs, real wages, prices of staples, availability of foods from public sources at concessional prices, etc.

3. Social protection

3.1 Extent of protection

- Note the current provision of social protection, including both that provided formally by government, international donors and civil society (NGOs, charities, etc.) as well as that provided informally through social ties based on links of kin, community, ethnicity, etc.
- Changes in the level and extent of protection provided publicly and privately.

3.2 Adequacy of protection

- Note those who are typically in need if support in 'normal' times, and the extent to which they are adequately protected against hunger and destitution.
- Those in need when food crises arise, and the extent to which protection can cope with their needs.

4. Policy processes and policy learning

4.1 Context

- Note problems arising from public policy and governance, including the following possibilities:
- Declining effectiveness of traditional authority to resolve local problems;
- Where decentralisation has led to more regulations and local taxes making it more difficult to run businesses;
- Impacts of reduced ability of central government to provide services both social and productive; and,
- Worsening personal and civil security.

4.2 Stakeholders and interest groups

- Key stakeholders in the food system, and their particular interests. Assess their relative power and points of leverage. In what ways has the configuration of stakeholders, interests and power changed over the last ten or even twenty years?
- The extent to which poor and food vulnerable groups represent their interests to policy-makers. Do they think of food security or social protection as a right?

4.3 Institutional environment

- Organisations empowered to make policy on food matters.
- The extent that parliament, and its committees, can scrutinise policy. Other effective checks on executive action, through, for example the courts, ombudsman, etc.
- The freedom and capacity of the media — press, TV, radio — to comment on food matters. Their role.

4.4 Policy process

- The main policies that affect food security. Above all those affecting, food production, food trade and marketing, social protection policy and (emergency) relief. Apparently important areas of food security that are not addressed by policy.
- How food security policy has been made. Mainly by the advice of professional civil servants, by ministers? How much influence have donor agencies had? Or domestic interest groups, lobbies — including farmer unions, academic or research institutes, etc.?
- Organisational capacity to implement policy. Key problems in implementation, such as lack of skills, incentives, corruption, etc.
- Accountability to the public of public agencies implementing food security policy.

4.5 Policy learning

- Main changes in food security policy over the last decade. To what extent have policy changes reflected learning from previous experience?
- Groups calling for reforms of food security policy, policy-making or implementation. Or groups in government or civil society likely to be champions for making changes to food security policy.
- Opportunities for using research findings to influence food security policy.
- Opportunities for increased participation of the poor and food-vulnerable in making policy for food security.

Appendix 2: Documents

Agricultural Policy Management and Marketing Information System June 2002 Report

FAO/World Food Programme Crop and Food Supply Assessment Mission Report, May 2002.

Food Security Stakeholders' Directory for Zimbabwe, October 2001.

Ministry of Lands, Agriculture and Rural Resettlement 2002 Statistical Bulletin.

SADC Food, Agriculture and Natural Resources Vulnerability Assessment Committee Reports: Regional Emergency Food Security Assessment Reports, June 2002, December 2002

UN Consolidated Inter-Agency Appeal in Response to the Humanitarian Crisis in Southern Africa. UN Office for the Coordination of Humanitarian Affairs, 2003.

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Zimbabwe's Food Security Policy and Strategy: Country Position Paper for the FAO World Food Summit: Five Years later, 10-13 June, Rome, Italy 2002.

Zimbabwe Agricultural Policy Framework 1995 to 2000.

Zimbabwe Emergency Food Security Assessment Report, 16 September 2002.

Appendix 3: Statistics

Table A2 Wheat and sorghum crop production 1990/91 –2000/02

Wheat	**Production**	**Area**	**Yield**			
Growing Season	(mt)	(ha)	(t/ha)			
1990/91	300 000	50 000	6.00			
1991/92	70 000	35 000	2.00			
1992/93	250 000	40 000	6.25			
1993/94	221 811	39 242	5.65			
1994/95	238 578	42 505	5.61			
1995/96	205 000	38 000	5.39			
1996/97	250 000	58 000	4.31			
1997/98						
1998/99						
1999/00						
2000/01						
	Communal Sector			**Commercial Sector**		
Sorghum	**Production**	**Area**	**Yield**	**Production**	**Area**	**Yield**
	(mt)	**(ha)**	**(t/ha)**	**(mt)**	**(ha)**	**(kg/ha)**
1990/91	51 300	106 200	0.48	16 800	7 600	2.21
1991/92	10 350	64 000	0.16	21 420	10 100	2.12
1992/93	69 510	138 600	0.50	20 000	10 110	1.98
1993/94	90 800	162 640	0.56	30 920	12 400	2.49
1994/95	16 730	126 740	0.13	12 750	4 250	3.00
1995/96	86 200	186 500	0.46	21 320	16 400	1.30
1996/97	115 128	190 200	0.61	14 940	4 150	3.60
1997/98	60 750	135 000	0.45	11 040	5 100	2.16
1998/99	72 400	144 800	0.50	13 200	5 400	2.44
1999/00	85 000	170 000	0.50	18 329	5 230	3.50
2000/01	41 240	103 100	0.40	19 500	7 200	2.71

Source: Ministry of Agriculture: Agricultural Statistical Bulletin, 2002

Appendix 4: NGOs Active in Food Security and Relief Programmes

Table A3 NGO contribution to food-aid in response to the 1992 drought food security programmes

NGO	Programme	Objective	Region/ Province of focus	Annual Budget for Programme	Contact Person
Lutheran World Federation					
Care					
Catholic Development Commission		To be completed			
Christian Care					
Christian Compassion Ministries					
Intermediate Technology Group					
Plan International					
Red Cross					
Save Children USA					
Save Children UK					
Redd Barna					
ORAP					
SFCZim					
China					
ZFFC					

Source: Various papers and Direct Communication