

## Chapter 4: Assessment Outcomes<sup>20</sup>

Based upon the methodology / approach outlined in chapter two a problem specification has been developed for each livelihood zone that reflects the current shocks or hazards that communities and households have had to face during the past twelve months. The problem specifications are livelihood zone specific but the outcomes for each zone disaggregate the impact by socio-economic group.<sup>21</sup> Production and supply conditions as well as market access and prices are the main components that are incorporated within the problem specification. A zonal simulation is carried out using the Riskmap 1.2v computer software programme. The outcome of the simulation is a final income/food deficit or indeed surplus that represents changes in income and food access for households. Many factors contribute to and embody rural livelihoods in Swaziland and therefore this vulnerability analysis takes a livelihood based approach. Relative vulnerability of households broken down by geographic area and socio-economic group varies by the types of shocks or hazards that are in existence and the types of livelihood pursuits being undertaken by households. In order to illuminate the process two simple examples follow:

*Example 1: A poor Lowveld household may rely heavily on casual labour in the agricultural sector and non-food production (e.g. mat making) and trade (e.g. brewing marula) to meet annual income/food requirements. A drought will not directly affect food access in a significant way because few crops are commonly grown by the household itself. However, employment opportunities may be depressed in the agricultural sector – reducing household income. The household will only be seriously affected if other employment markets are similarly depressed and/or markets for brewing or non-food production decline thereby substantially reducing household income and alternative coping strategies.*

*Example 2: If there is a better off household that relies mostly on its own farming ability to produce 40-50% of annual food needs and relies heavily on the sale of cash crops (e.g. cotton or maize) to be able to purchase the varied food stuffs (beans, vegetable oil, soup powder, salt) it requires for consumption and normal household non-food items – it will be hit very hard by a drought that reduces food crop and cash crop production. However, the overall vulnerability and deficit of the household will mostly be judged by the assets (e.g. livestock/cash savings) that the household may utilise to make up the income/food deficit and the ability of household members to turn to employment as a coping strategy to earn income. Clearly an increase in food prices will be detrimental if the household suddenly has to purchase 80-90% of its food requirements (which it normally grows on the farm), and falling livestock prices could make food security even more expensive as more cattle/goats may have to be sold to ensure food and basic household items are met.*

Calculating vulnerability is a sophisticated and difficult endeavour and understanding the complexity of exchange entitlements is vital. These exchange entitlements revolve around the relative value of cash, asset prices and incomes to prices and market operations (e.g. if maize prices increase and labour rates stay the same, a poor household that relies on maize purchase from employment income for survival will suffer reduced access to food). More detailed participatory community assessments are vital as a follow up to the broad area conclusions within this report giving early warning of vulnerability. We must ensure that vulnerability at the household level is properly understood and considered by planners, particularly when it comes to targeting. Specific

<sup>20</sup> This chapter is presented assuming readers have absorbed the methodological approach in chapter 2

<sup>21</sup> Based on the baseline livelihood profiles for the poor, middle and better off groups developed in the Nov/Dec 2002 VAC assessment

indices to capture HIV/AIDS within the analysis are not included but are assumed within the general trends and decline in production and market operations.

In the next section the problem specification and resulting income/food deficits are outlined for each livelihood zone (figure 24). After this table 5 goes on to provide planners with more concrete ways of analysing the income/food deficit outcomes. It provides a breakdown of the deficits by providing possible credible cash alternatives to off-set the income/food deficits. It is very easy to run the simulation with different values for maize purchase. The current analysis uses the value of E4.9 (USD 0.77) for the purchase of 1KG of maize meal in the rural areas. The basis for this value is the average from field interviews carried out by the VAC teams during the national assessment – during which answers given by respondents were cross-checked with local retail outlets. If households are able to purchase in bulk (up to 20kg tins or 50kg bags) the 1kg maize meal value will reduce because economies of scale will have been achieved. However, poor households are rarely able to purchase in bulk and thereby benefit from economies of scale.

Cash transfers (that households could use to purchase their food requirements) are incorporated as a response in order to provide decision-makers with alternatives to (the sometimes automatic reliance on) food aid in order to off-set the income/food deficits being faced the majority of the rural population. Food aid will continue to play an important role in the short to medium term to meet on-going food insecurity in the most vulnerable areas of the country. However, alleviation of chronic poverty will not be achieved by continuous distributions of food aid. Programmes that incorporate cash transfers may provide additional benefits by stimulating a multiplier effect within cash strapped communities across Swaziland. It is becoming increasingly evident in other African countries such as Ethiopia, Lesotho and Malawi that plausible ways, such as cash transfers through distribution of vouchers or other non-food welfare provision (e.g. public works programmes) may be more appropriate to support chronic poverty and chronic food insecurity. Increasingly donors and agencies are viewing these alternatives in a positive light. Table 5 is provided in order to give policy and programme decision-makers with ball-park figures so that the deficits can be understood in monetary/income terms as well as food tonnages.

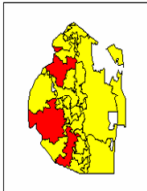
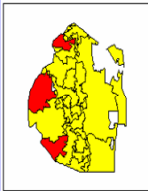
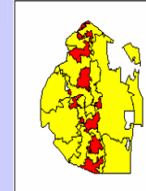
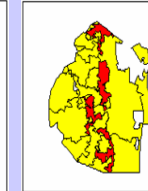
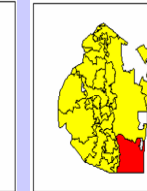
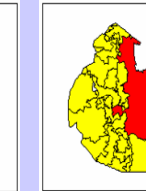
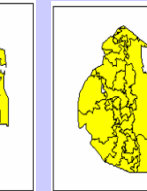
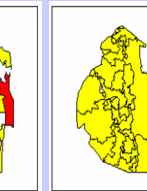
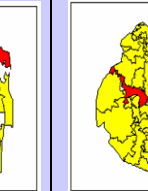
A description of the reasoning for the problem specifications is summarised for each of the nine livelihood zones after table 5. Analysis of vulnerability is based on how households normally access food and income and how these may have changed as a result of shocks during 2003/4. The problem specifications for each zone are judgements by the VAC based on a synthesised analysis of secondary data, community interviews and stakeholder consultations. Each of the zonal reports concludes with a summary of the problem specification and breakdown of income/food deficit by wealth group. The simulation has resulted in a histogram for each livelihood zone showing the 'final result' of the May 2004 simulation. The graph indicates how the estimated income/food deficit 2003/2004 is distributed across the wealth groups. The first decile represents the poorest and the tenth decile represents richest top 10%. (NB the population in each decile is equal to one tenth of the base population in each area.) It is important to note that the simulation takes no account of the use of cash savings or the bartering of other highly disposable cash-like assets for lack of any credible evidence. These coping mechanisms in addition to shifting /reducing expenditure from other areas (such as health, education and other areas of consumption such as clothing etc. ) will play a role in offsetting the assessed deficits especially for middle and better-off groups.

The income/food deficits that result from the simulation vary quite considerably by socio-economic group in several zones and planners should take note. Only the mean figure for each zone is included in figure 24. In most instances a more **accurate** picture can be understood by studying the wealth group breakdowns for each livelihood zone.

**Figure 24: Income/food deficits for populations by Livelihood Zone**

## **Overall Income/Food Deficits – All Zones**

## Swaziland VAC Annual Vulnerability Assessment - May 2004

		1	2	3	4	5	6	7	8	9
Livelihood Zone		Highveld Maize & Cattle	Timber Highlands	Wet Middleveld	Dry Middleveld	Lowveld Cattle & Cotton	Lowveld Cattle, Cotton & Maize	Lubombo Plateau	Lomahasha Trading & Arable	Peri Urban Corridor
Location										
Rural Pop 1997 @ 2.4%/Annum		162,000	85,000	126,000	135,000	44,000	157,000	23,000	26,000	71,000

### Current Hazards/Shocks

#### Production & Supply

#### Changes in "normal" production and supply conditions Index 100=Normal (Index range 0-300)

Food Crops	50-60%	50-60%	50-60%	50-60%	20-30%	30-40%	50-60%	0-20%	50-60%
Grazing	80-90%	80-90%	60-70%	70-80%	70-80%	70-80%	90-100%	80-90%	70-80%
Wild Foods	50-60%	50-60%	70-80%	50-60%	50-60%	70-80%	50-60%	50-60%	80-100%
Relief/Gifts	30-40%	30-40%	40-50%	30-40%	30-40%	30-40%	30-40%	30-40%	80-100%
Cash Crops	20-30%	30-40%	50-60%	30-40%	0-10%	30-40%	70-80%	0-20%	50-60%

#### Access to Markets

#### Changes in "normal" market access - Index 100=normal (or one of 5 categories of depressed market access 75-100, 50-75, 25-50, 0-25 and 0)

Employment	50-75%	50-75%	75-100%	50-75%	25-50%	50-75%	50-75%	50-75%	100%
Livestock	75-100%	75-100%	75-100%	50-75%	50-75%	100%	100%	75-100%	75-100%
Cash Crops	75-100%	75-100%	75-100%	75-100%	75-100%	75-100%	75-100%	50-75%	75-100%
Non-food Production	75-100%	50-75%	50-75%	75-100%	50-75%	75-100%	100%	50-75%	75-100%
Trade	100%	75-100%	100%	75-100%	50-75%	75-100%	100%	50-75%	100%
Food Purchase / availability	100%	75-100%	100%	100%	75-100%	100%	100%	75-100%	100%
Food Price	125%	125%	125%	125%	125%	125%	125%	125%	125%

### Outcomes

#### Income/food deficit - after using available coping/response strategies

% of pop with an income/food deficit	20%	100%	70%	70%	100%	100%	10%	100%	100%
Affected Population	32,400	85,000	88,200	94,500	44,000	157,000	2,300	26,000	71,000
Mean annual income / food deficit	19%	36%	27%	35%	27%	33%	13%	32%	18%

**Table 5: Income/food deficits broken down by SEG off-set by cash transfer and food support options**

NB: Calculations use 400gms/pers/day in order to allow comparison with the CFSAM. Also, 1MT maize meal (local rural prices) = 762USD

		<b>Poor Wealth Group</b>														
No.	Livelihood Zone	Total Population	Est % of total Pop is 'poor'	Est Total Poor Pop	Affected Poor Population	X	Estimated Income / Food Deficit 2003 / 2004	=	Income / Food Deficit (MT)	or	Total Income Transfer US \$ (using current rural purchase prices of maize meal per Kg of US \$ 0.76)	or	Total Income Transfer required per affected person in US \$	or	Total Income Transfer required per affected Family of 6 persons in US \$	
1	Highveld Maize & Cattle	162,000	38%	61,560	12,312	X	19%	=	342	or	\$260,250	or	\$21.14	or	\$126.83	
2	Timber Highlands	85,000	33%	28,050	28,050		34%	=	1,392	or	\$1,061,010	or	\$37.83	or	\$226.95	
3	Peri Urban Corridor	71,000	31%	22,010	22,010		12%	=	386	or	\$293,839	or	\$13.35	or	\$80.10	
4	Wet Middleveld	126,000	48%	60,480	60,480		30%	=	2,649	or	\$2,018,556	or	\$33.38	or	\$200.25	
5	Dry Middleveld	135,000	48%	64,800	64,800		39%	=	3,690	or	\$2,811,561	or	\$43.39	or	\$260.33	
6	Lowveld Cattle, Cotton & Maize	157,000	29%	45,530	45,530		35%	=	2,327	or	\$1,772,856	or	\$38.94	or	\$233.63	
7	Lowveld Cattle & Cotton	44,000	48%	21,120	21,120		45%	=	1,388	or	\$1,057,339	or	\$50.06	or	\$300.38	
8	Lomasha Trading & Arable	26,000	28%	7,280	7,280		37%	=	393	or	\$299,668	or	\$41.16	or	\$246.98	
9	Lubombo Plateau	23,000	26%	5,980	644		13%	=	12	or	\$9,314	or	\$14.46	or	\$86.78	
		829,000		316,810	262,226				12,578		\$9,584,393					
		<b>Middle Wealth Group</b>														
No.	Livelihood Zone	Total Population	Est % of total Pop is 'middle'	Est total middle Pop	Affected Middle Population	X	Estimated Income / Food Deficit 2003 / 2004	=	Income / Food Deficit (MT)	or	Total Income Transfer US \$ (using current rural purchase prices of maize meal per Kg of US \$ 0.76)	or	Total Income Transfer required per affected person in US \$	or	Total Income Transfer required per affected Family of 6 persons in US \$	
1	Highveld Maize & Cattle	162,000	41%	34,850	0	X	0%	=	0	or	\$0	or	\$0.00	or	\$0.00	
2	Timber Highlands	85,000	56%	90,720	90,720		37%	=	4,901	or	\$3,734,329	or	\$41.16	or	\$246.98	
3	Peri Urban Corridor	71,000	47%	33,370	33,370		20%	=	974	or	\$742,496	or	\$22.25	or	\$133.50	
4	Wet Middleveld	126,000	40%	50,400	27,720		24%	=	971	or	\$740,137	or	\$14.69	or	\$88.11	
5	Dry Middleveld	135,000	40%	54,000	29,700		30%	=	1,301	or	\$991,255	or	\$18.36	or	\$110.14	
6	Lowveld Cattle, Cotton & Maize	157,000	51%	80,070	80,070		31%	=	3,624	or	\$2,761,464	or	\$34.49	or	\$206.93	
7	Lowveld Cattle & Cotton	44,000	35%	15,400	15,400		9%	=	202	or	\$154,195	or	\$10.01	or	\$60.08	
8	Lomasha Trading & Arable	26,000	53%	12,190	12,190		35%	=	623	or	\$474,657	or	\$38.94	or	\$233.63	
9	Lubombo Plateau	23,000	58%	15,080	0		0%	=	0	or	\$0	or	\$0.00	or	\$0.00	
		829,000		386,080	289,170				12,597		\$9,598,533					
		<b>Better Off Wealth Group</b>														
No.	Livelihood Zone	Total Population	Est % of total Pop is 'better off'	Est total better off Pop	Affected Better Off Population	X	Estimated Income / Food Deficit 2003 / 2004	=	Income / Food Deficit (MT)	or	Total Income Transfer US \$ (using current rural purchase prices of maize meal per Kg of US \$ 0.76)	or	Total Income Transfer required per affected person in US \$	or	Total Income Transfer required per affected Family of 6 persons in US \$	
1	Highveld Maize & Cattle	162,000	21%	17,850	0	X	0%	=	0	or	\$0	or	\$0.00	or	\$0.00	
2	Timber Highlands	85,000	11%	17,820	17,820		34%	=	885	or	\$674,054	or	\$37.83	or	\$226.95	
3	Peri Urban Corridor	71,000	22%	15,620	15,620		24%	=	547	or	\$417,061	or	\$26.70	or	\$160.20	
4	Wet Middleveld	126,000	12%	15,120	0		0%	=	0	or	\$0	or	\$0.00	or	\$0.00	
5	Dry Middleveld	135,000	12%	16,200	0		0%	=	0	or	\$0	or	\$0.00	or	\$0.00	
6	Lowveld Cattle, Cotton & Maize	157,000	20%	31,400	31,400		33%	=	1,513	or	\$1,152,793	or	\$36.71	or	\$220.28	
7	Lowveld Cattle & Cotton	44,000	17%	7,480	7,480		11%	=	120	or	\$91,538	or	\$12.24	or	\$73.43	
8	Lomasha Trading & Arable	26,000	19%	4,370	4,370		15%	=	96	or	\$72,926	or	\$16.69	or	\$100.13	
9	Lubombo Plateau	23,000	16%	4,160	0		0%	=	0	or	\$0	or	\$0.00	or	\$0.00	
		829,000		130,020	76,690				3,161		\$2,408,372					
							TOTAL MT	=	28,335	or	\$21,591,299	or	129,547,792	Emalangeneni		

## **Highveld Maize and Cattle Livelihood Zone**

### **Livelihood Patterns**

High maize production levels are common in the Highveld Maize and Cattle (HMC) zone. Production is usually greater than any other areas because rainfall is conducive and usually fairly reliable in quantity and quality. Even during drought seasons, this zone has been able to produce surpluses although production may be considered to be below normal. People in this zone predominantly depend on crop production and purchases as their main food sources. The poor wealth group gets 10-15% of their food needs through crop production and 35-45% through purchases. Wild foods and gifts and relief contribute about 10-15% and 15-20% respectively. For the middle wealth group own crop production and purchases contribute 20-35% of their food needs and meat/milk contribute about 15-25% of their needs. The better off wealth group are also dependent on their own production, meat/milk production and food purchases combining as the main food sources (at 30-40%, 15-25% and 35-45% respectively).

Most poor people in this zone depend on employment/remittances as their main source of income but non-food production and trade also make important contributions to overall income (poor: 35-40%, middle & better off groups: 20-35%). Livestock and cash crop sales play an important role as an income source, particularly for the middle (10-25% and 20-35%) and better off groups (20-25% and 20-30% respectively).

### **Current Situation**

While production is expected to be below normal this cropping season, it is still the highest in all the livelihood zones in quantitative terms. Overall land area put to maize is much lower than normal. Food production is projected to be at 50-60% of normal in this zone although the vast majority of this production will be by the middle and the better off wealth groups. The poor on the other hand are anticipated to produce very little maize or nothing at all. This is attributed to the late start of the season because of below normal rainfall between September and December and the succession of unsuccessful replanting attempts during this critical planting period. Most poor farmers were unable to afford successive replanting. Lack of inputs (because of their high cost) contributed to the low production with difficulties accessing tractors being reported as common. Ploughing at the optimum time is essential and it was reported that tractors would be available late when soil moisture was reduced thus limiting germination prospects.

Cash crop production is expected to be very low at 20-30% of normal. Difficult climatic conditions forced farmers to concentrate on production for their own consumption before production for sale. Maize is the only major cash crop in the zone and it was greatly affected by the abnormal rainfall pattern during the first half of the winter season. Furthermore, March and April are usually months with increasingly sparser rainfall to accommodate the drying of the maize cobs, but a high level of precipitation during these months in 2004 has caused cob rot among the maize plants reducing yield expectations.

In November and December a total of over 2000 cattle deaths were recorded in this zone due to lack of grazing areas and drinking water. However, livestock and grazing area conditions have improved a great deal following the rainfall in the first three months of 2004. Overall rainfall levels remained below the long term average in January and February. Only in March did current year rainfall exceed the long term average. The livestock that survived the dry period are now enjoying the benefits of these late rains. Gifts / relief have recorded normal levels. This is because in this zone, they are not a prominent feature as such this season is not different from the others.

### Access to Markets and Prices

The employment market has been affected and is judged to be between 50-75% of normal. This is due to the closure of mines and industries both locally and in South Africa. This closure has resulted in retrenchments which meant a significant decline in access to income to cater for food purchases. The few operating industries, particularly textile industries have an uncertain life-span as retrenchments can occur suddenly and sustainability of industries is not ensured. Casual labour markets have also been in decline due to declining demand from the agricultural sector. The livestock market has been affected and is considered to be 75-100% of normal due to the fact that the market price is not demand driven. Livestock markets and livestock purchasers do not come so close to communities anymore, forcing sellers to take their livestock further or sell locally for unsatisfactory prices. The non-food production market is also slightly depressed. The market is affected by low availability of natural resources (e.g. grasses) caused by the irregular rainfall patterns. Cash crops markets (and in particular maize) is affected by poor marketing conditions. Records show that on-farm storage has been high with low levels of sale to NMC because of low prices. However, informal maize marketing systems such as sale to the Lowveld have continued driven by higher maize purchase prices. Trade and food purchase markets have not changed and are still operating normally.

Food prices have increased slightly with recordings of 125% of normal due to the fact that local traders charge prices determined by them incorporating the transport costs, whole prices etc. and transport costs have been increasing. Livestock prices have also increased slightly due to various factors such as good livestock condition due to improved grazing areas, weight and breed of the livestock will trigger an improved price for sellers.

### Community Priorities

Water and employment were the two main priorities for communities in the zone. Improved water access is required for domestic and irrigation purposes. Currently the communities are using water from dams and rivers for domestic purposes which is subjected to pollution resulting in disease out-breaks as livestock utilise the same water sources. Access to water for irrigation purposes will assist during drought periods to sustain their crop yields. The communities have developed income generating schemes such as poultry and bee keeping and handicraft, and have approached government through the development fund to kick-start income generation projects with financial support. They have also raised funds to contribute to capital costs of drilling boreholes and have approached NGOs for assistance. Communities feel that government is better placed to assist them with capital projects however NGO's are quick in response.

**Problem specification** (figures represent % change according to normal – normal =100)

Production	Food Crops	L'stock/Grazing	Wild Foods	Gifts/Relief	Cash Crops		
Scores	50-60%	80-90%	50-60%	30-40%	20-30%		
Markets	Employment	Livestock	Cash Crops	NFP	Trade	Food Purchase	Food Price
Scores	50-75%	75-100%	75-100%	75-100%	100%	100%	125%

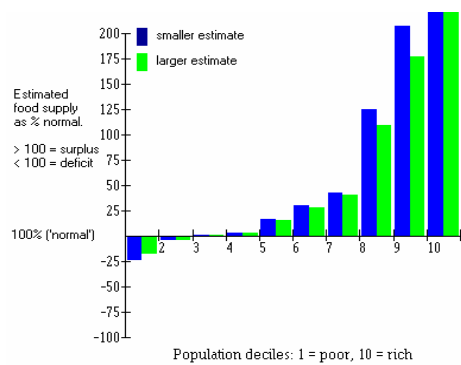
NFP = Non-Food Production

### Zone Outcome

The **poor** in the HMC normally derives their food access from food crops (13%), meat/milk (7%), fishing (7%), wild foods (13%), gift /relief (18%) and purchases (41%). These total 100% of the requirement. As a consequence of the shocks and hazard impacts specified for the 2003/2004 year the simulation has estimated the outcome for the year to be - food crops (8%), meat/milk (6%), fishing (7%), wild foods (7%), gift/relief (7%) and (due to losses in cash income and food price inflation) purchases have fallen (30%). These total only 65% of requirements. This defines an initial "crude deficit" of 35% of total food access. The simulation then systematically assesses the impact of all eight possible coping strategies on reducing this initial 'crude deficit'. Seeking additional employment was the only coping strategy that managed to reduce the deficit by 10% to 25%. Re-distribution of income and food to poor households contributed a further 6% **leaving a**

**final result of 19%.** Interventions that are able to increase the supply of employment available to the poor would strengthen their main coping strategy.

The **middle** and **better-off** households in the HMC did not incur any deficits this year.



## **Timber Highlands Livelihood Zone**

### **Livelihood Patterns**

Livelihoods in this zone are highly influenced by employment levels offered by the forestry companies. The main sources of food are own crop production, purchases and milk/meat. The poor get 10-15% of their food from cultivation of their own crops while the middle and rich groups get 30-50% and 20-60% respectively. Milk/meat contributes more to the middle and rich groups as sources of food than the poor group because they have access to livestock assets. Purchases are also prominent particularly in the poor group as farming production is low (40-60%), while the middle and rich groups get 30-40% and 25-40% of their food through purchases respectively. High purchase levels make households vulnerable to food price increases. Wild foods also contribute to food needs in this zone especially for the poor and middle groups (10-20% and 10-15% respectively).

Sources of income are highly dependent on employment/remittances and sale of cash crops and therefore dips in the employment and cash crop markets can be a problem especially when combined with an increase in food prices. For the poor group, 50-80% of their income comes from employment/ remittances while the middle and rich groups get 25-45% and 15-35% respectively. Income to households from cash crop sales contributes 25-45% for the middle and 30-40% for the rich. Contribution of income from sale of livestock varies within the groups from 10-15% for the poor (mostly chickens), 5-10% for the middle and 10-20% for the better off.

### **Current Situation**

Crop production will be below normal for this zone due to the delayed and sub-normal rainfall pattern which resulted in less than the normal area planted and some failed crops. Replanting was possible for those farmers that had the resources for additional inputs. Significant numbers of households did not re-plant because they had lost hope that reasonable rains would occur and the season was somewhat advanced by the time the rains finally arrived. Furthermore, difficult access to tractors and other inputs at optimal planting times is cited by farmers to have reduced production. Yields have been negatively affected by the high rainfall during March and April when increasingly dryer conditions are required to support the maize drying process before harvesting and storage.

Cash crops in this zone include maize, vegetables and sweet potatoes. Production is expected to be at 30-40% of normal. This is attributed to the high rainfall which has damaged the maize crop and made vegetable yields almost zero. Sweet potato production on the other hand, has become more popular due to low input costs and easier production. Wild food production is low compared to normal due to the increases in forestry production and construction of roads and dams and below normal rainfall. Gifts and relief are below normal. Communities state that free gifts between households and families are reducing as wealth levels decrease and community social safety nets are increasingly under pressure. Livestock and grazing area condition are much recovered compared to the early season at 80-90% of normal with a slight depression due to the low overall rainfall received in the Highveld.

### **Market Access & Prices**

Employment is 50-75% of normal because the textile factories that started operating in 2000/2001 are mostly closed and the ones that continue to operate have retrenched many of their staff and future prospects are uncertain. The closure of mines and retrenchment by the forest companies also had a negative impact on the employment market. Non-food production is 50-75% of normal due to shortage of raw materials (e.g. grasses) which are normally rain-fed. Livestock, cash crop, other trade and food purchases markets are slightly below normal. A foot and mouth outbreak affected livestock markets in some areas. The food prices show an increase due to



excess demand against supply and low level sale of maize stocks. Livestock prices have increased slightly because of their improved condition and reduced supply because of cattle losses through the recent food and mouth disease outbreak.

### Community Priorities

The main problems communities cited in this zone are employment, health, agriculture and water. The communities were keen to engage in new income generation and employment opportunities that may come from NGOs or Government. Most communities are far from their nearest hospital. In the advent of HIV/AIDS and increasing illness in the communities, it was reported that hospitals have become more important but are no longer able to admit patients. The hospitals prefer outpatient care but transport costs are large for regular visits. A greater number of local clinics were desired by communities that can offer the appropriate services. Access to agricultural inputs was also cited as difficult, particularly because of associated transport costs. Farmers have to travel independently on buses to carry fertiliser and seeds and several journeys may be required. Communities wish to see agricultural input storage facilities and outlets closer to them. The communities state they lack clean domestic water as they use water from rivers and dams which are not hygienic and may be polluted. Dam construction for irrigation was also suggested to be important to mitigate the impact of dry periods in the cultivation season.

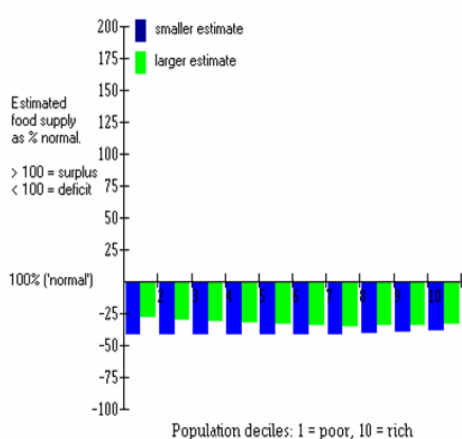
### Problem specification (figures represent % change according to normal – normal =100)

Production	Food Crops	L'stock/Grazing	Wild Foods	Gifts/Relief	Cash Crops		
Scores	50-60%	80-90%	50-60%	30-40%	30-40%		
Markets	Employment	Livestock	Cash Crops	NFP	Trade	Food Purchase	Food Price
Scores	50-75%	75-100%	75-100%	50-75%	75-100%	75-100%	125%

NFP = Non-Food Production

### Zone Outcome

The **poor** in the TH normally derives their food access from – food crops (14%), meat/milk (2%), fishing (4%), wild foods (16%), gift/relief (8%) and purchases (56%). The simulation has estimated the outcome for the year to be - food crops (8%), meat/milk (1%), fishing (4%), wild foods (9%), gift/relief (3%) and purchases at (33%). This adds up to only 58% of requirements or an initial “crude deficit” estimate is 42% of total food access. The simulation then systematically assesses the impact of coping strategies on reducing this initial ‘crude deficit’. Again seeking additional employment was the only coping strategy that managed to reduce the deficit by 8% **to a final result of 34%.**



The **middle** wealth group in the TH normally derives their food access from – food crops (33%), meat/milk (17%), fishing (3%), wild foods (11%), gift/relief (3%) and purchases (33%). The simulation has estimated the outcome for the year to be - food crops (17%), meat/milk (15%), fishing (3%), wild foods (6%), gift/relief (2%) and purchases (11%). This totals only 54% of requirements or an initial “crude deficit” estimate of 46% of total food access. The simulation then systematically assesses the impact of coping strategies on reducing this initial ‘crude deficit’. Again seeking additional employment was the only coping strategy that managed to reduce the deficit by 9% **to a final result of 37%.**

The **better-off** wealth group in the TH normally derives their food access from – food crops (47%), meat/milk (21%), gift/relief (2%) and purchases (30%). The simulation has estimated the outcome for the year to be - food crops (25%), meat/milk (18%), gift/relief (2%) and purchases at

(12%). This totals only 57% of requirements or an initial “crude deficit” estimate is 43% of total food access. The simulation then systematically assesses the impact of coping strategies on reducing this initial crude deficit. Again seeking additional employment was the only coping strategy that managed to reduce the deficit by 9% **to a final result of 34%.**

The livelihoods of all relative wealth groups in the Timber Highlands appear to be vulnerable to the shocks of food price inflation and to the declining employment opportunities. That said their only main coping strategy is to attempt to increase their supply of labour to off-set their deficit purchasing power and reduced food crop production. Interventions that are able to increase the supply of employment available or the real wages in the industry would improve the situation of forestry workers.

## **Peri-Urban Livelihood Zone**

### **Livelihood Patterns**

Livelihood patterns within the Peri-Urban Corridor are quite diversified, reflecting the increase in formal and informal opportunities to access income and food. Despite the close proximity to markets, crop production by households still plays an important part in annual food access for all socio-economic groups but especially the middle and better off. Milk and meat products (from their own livestock) are more important for poorer groups than in other zones. Purchase of food is important for all groups ranging mostly from 30-50% of annual food requirements for households. Income types are highly diversified because of the close proximity of marketing opportunities. Employment / remittances (both formal and informal), livestock sales, cash crop, non-food production and other trading activities all combine to form the core of livelihood and food access in the zone. Livestock and cash crops contribute in a smaller way to the poor groups' income pattern than to the middle and better off groups.

### **Current Situation**

Overall maize production in the zone is judged to be below normal. Some households have been able to cultivate while many others have faced production constraints. Most households faced maize cultivation difficulties during the dry period up to December and uncertainty about the weather conditions in general has limited overall land cultivated. Poorer households have been suffering from lack of access to inputs. Some of the maize successfully germinated during November and December has suffered from the high moisture levels in March resulting in cob rot. Maize remains the dominant crop in the zone with few families engaging in bean production. Late and heavy rains have detrimentally affected the bean harvest of those households that took the opportunity.

The reduction in size of landholding available for households is the limiting factor in the production of maize, particularly as a cash crop. Urban / peri-urban pressures in the zone mean that available land is increasingly being utilised for construction of settlements. The quantity of land available for arable agriculture is reducing. Furthermore, land is also being taken up for road construction and other infrastructural developments such as electricity and thereby reducing the land available for grazing by livestock. Grazing has also been affected by the Chromolena weed (Sandanezwe). It was stated that, if the situation was not tackled, the grazing land that is currently available would be made redundant in five to ten years because of the weed. Overall the condition of livestock is much improved since January because of the good level of rains and improving pastures.

### **Market Access & Prices**

Access to markets and levels of formal and informal employment are central to the economic and social welfare of the zone. The employment situation is judged to be normal. A much smaller percentage of jobs and income is earned from agriculturally based jobs than in other zones e.g. in the Lowveld and therefore the zone has been less affected by the downturn in agricultural production. Livestock markets were affected by the poor condition of cattle in the last few months of 2003, however the much improved condition of cattle has enhanced the marketing situation considerably. Access to official cattle sale yards provides a fair platform for buyers and sellers with sale based on the weight of animals. Demand for meat from the urban areas ensures a virtually constant demand for livestock. Cash crop markets and maize markets in particular have been affected by recent swings in the official price of maize between 2002 and 2004. Previously high prices (in 2002) encouraged increased production but prices were not sustained during 2003 and the NMC reduced its purchasing price by approximately 35% by 2003.

On farm stocks were high as farmers retained their maize in anticipation of higher maize prices and subsequently some maize has been lost because of poor storage practices. Non-food

production is slightly depressed because of below normal rainfall affecting natural resources. Trading activities and food markets were judged to be operating normally.

Food prices were judged to have increased by 25% compared to normal. Livestock prices have increased by as much as 20% when compared to April 2003.

### Community Priorities

Access to water for irrigation purposes was cited as the main problem affecting communities. Even in areas where water was available, access was often not possible. Communities expressed a wish to grow high value cash crops such as vegetables and possibly dry season maize. Lack of cooperation and organisation among local government was cited by the community as one limiting factor. It was felt that the Rural Water Supply Branch could help solve some of these problems. Lack of initiative within the community, particularly amongst poorer groups was thought to contribute towards the lethargy.

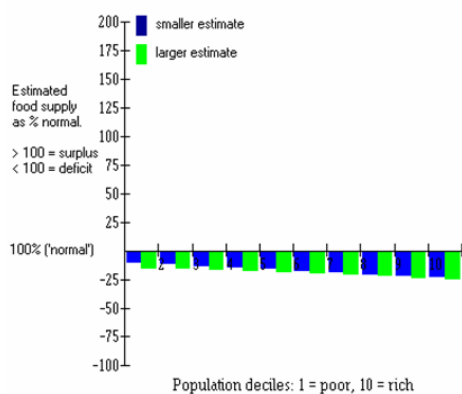
### Problem specification (figures represent % change according to normal – normal =100)

Production	Food Crops	L'stock/Grazing	Wild Foods	Gifts/Relief	Cash Crops		
Scores	50-60%	70-80%	80-100%	80-100%	50-60%		
Markets	Employment	Livestock	Cash Crops	NFP	Trade	Food Purchase	Food Price
Scores	100%	75-100%	75-100%	75-100%	100%	100%	125%

NFP = Non-Food Production

### Zone Outcome

The **poor** wealth-group in the PUC normally derives their food access from – food crops (15%), meat/milk (13%), fishing (8%) wild foods (13%), gift/relief (8%) and purchases (43%). The simulation has estimated the outcome to be - food crops (8%), meat/milk (10%), fishing (8%), wild foods (12%), gift/relief (7%) and purchases (38%). This sums up to 83% or an initial “crude deficit” estimate is 17% of total food access. Employment coping strategies reduced the deficit by 5% to a **final result of 12%**.



The **middle** wealth-group normally derives their food access from – food crops (27%), meat/milk (19%), fishing (2%), wild foods (8%), and purchases (44%). The simulation has estimated the outcome for the year to be - food crops (16%), meat/milk (14%), fishing (2%), wild foods (7%), and purchases at (35%). This sums up to 74% or an initial “crude deficit” estimate is 26% of total food access. Employment coping strategies managed to reduce the deficit by 6% to a **final result of 20%**.

The **better-off** wealth-group normally derives their food access from – food crops (36%), meat/milk (26%), wild foods (2%), and purchases (36%). The simulation has estimated the outcome to be - food crops (20%), meat/milk (19%), wild foods (2%), and purchases at (28%). This sums up to 69% or an initial “crude deficit” estimate is 31% of total food access. Employment coping strategies reduced the deficit by 7% to a **final result of 24%**.

## **Wet Middleveld Livelihood Zone**

### **Livelihood Patterns**

This zone exhibits some ecological differences due to variation in altitude (600-800m) and levels of rainfall. This is an important maize producing area rivalling the Highveld in productivity. Drought hazard (for maize production) in any one year is probably in the range of 20-30%. The zone contains around one-sixth of the country's rural population and presents a varied display of primary smallholder production, livestock rearing and non-agricultural employment.

For both better-off and middle wealth groups maize is by far the biggest food and cash crop, whilst the poor are more often seen as labourers working for others. The wealthier groups are estimated to normally provide 40-50% of their staple food needs from their own crops. Wage and salaried employment is more or less confined to these two groups. The ownership of cattle is strong in both groups – 20-30 and 5-10 head respectively, although some amongst the better-off own more than 100 head.

Most poor households have access to land and have significantly larger average family size. They generally have a maize harvest of 1-5 bags, grown on 0.5-1 hectare. Own food production contributes 10-15% to staple consumption. They do not normally sell any crops. The poor do not own any cattle or goats but only a few chickens. Employment (mainly daily labour and seasonal), contributes 50-65% to their income. Non-food production (mainly handicraft, beer brewing, sale of wild foods and poles) contributes 25-40% to income. Trade contributes a further 5-15% of their income.

### **Current Situation**

The current cropping season has experienced a significant reduction in the production of the staple maize crop. The late and patchy start to the rains has been a major factor. Other issues affecting production include shortages of draught power, the high cost of farming inputs and the lack of support from extension services. The production of other food crops such as sugar beans, sweet potatoes and pumpkins is on a much smaller scale. Maize doubles up as the main cash crop and this year saleable maize production is expected to be 50% of normal. Pastures have not developed well this summer and have a low nutritive value. Livestock production is therefore expected to be depressed and below normal. In addition there appears to be limited adherence to rotational grazing practices as the fencing arrangements (in the areas visited) are in poor condition.

### **Market Access and Prices**

The scale of farming activities of middle and better-off farmers normally generates opportunities for casual agricultural wage employment – in weeding, harvesting and in storage operations. Given the production levels for maize this year, trade in casual agricultural wage labour is estimated to be 75% of normal. Concerning livestock trade, cattle sale yards are widely distributed and utilized in this zone. However as a result of the poor quality of cattle linked to the poor grazing conditions, trade in livestock is considered to be 75% of normal. The current maize cash crop market appears to be limited to local sales where farmers secure a better price per Kg than official sales to NMC but face low quantity of sales. The cash crop trade is therefore considered to be operating at 75% of normal. The trade in non-food production is quite depressed – especially for crafts dependent upon special grasses that are in short supply. The Wet Middleveld appears to have normal petty trade and food purchase trading activities in 2003/04. Many areas have close proximity/access to urban centres and are able secure sufficient regular supplies of stock. Food price inflation over the period 2002/2003 and 2003/2004 is estimated to be about 10% and 25% compared to normal. The price of cattle over the same period has gone up by 20%.

### Community Priorities

The communities interviewed emphasized water supply developments, gardening schemes, access to health and general infrastructure development. The communities identified poor support by local government staff as a major factor inhibiting development.

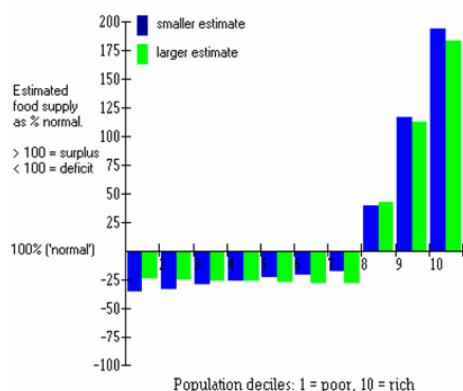
### Problem specification (figures represent % change according to normal – normal =100)

Production	Food Crops	L'stock/Grazing	Wild Foods	Gifts/Relief	Cash Crops		
Scores	50-60%	60-70%	70-80%	40-50%	50-60%		
Markets	Employment	Livestock	Cash Crops	NFP	Trade	Food Purchase	Food Price
Scores	75-100%	75-100%	75-100%	50-75%	100%	100%	125%

NFP = Non-Food Production

### Zone Outcome

The **poor** in the WM normally derive their food access from – food crops (13%), meat/milk (2%), wild foods (6%), gift/relief (26%) and purchases (53%). The simulation has estimated the outcome for the year to be - food crops (7%), meat/milk (2%), wild foods (3%), gift/relief (12%) and purchases at (39%). This sums up to 63% of requirements or an initial “crude deficit” estimate is 37% of total food access. Coping strategies of seeking additional employment managed to reduce the deficit by 4%, additional other trade by 2% and redistribution within the community reduced the deficit by a further 1% to a **final result of 30%**.



The **middle** wealth-group normally derives their food access from – food crops (44%), meat/milk (19%), wild foods (2%), gift/relief (2%) and purchases (33%). The simulation has estimated the outcome for the year to be - food crops (24%), meat/milk (12%), wild foods (2%), gift/relief (2%) and purchases at (23%). This sums up to 63% of requirements or an initial “crude deficit” estimate is 37% of total food access. Use of food stocks reduced the crude deficit by 5%, seeking additional employment managed to reduce the deficit by 4% and additional other trade reduced it a further 4% to a **final result of 24%**.

The **better-off** households in the WM did not incur any deficits this year.

## **Dry Middleveld Livelihood Zone**

### **Livelihood patterns**

This area exhibits agricultural production features that fall between the more productive Wet Middleveld and more drought-prone areas of the Lowveld. Drought hazard for maize production is quite high - in the range of 40-60%. None-the-less maize provides the main staple food crop even in the relatively less productive areas of this livelihood zone. Low yields result from the use of hybrid maize seed and the erratic/non-use of inputs by an increasing number of poor farmers who currently make up 50% of all households in this area. Purchased food makes up a high percentage of their food in-take. This in turn results in a high dependence on casual and other employment. Communities in this zone are sensitive to losses of purchasing power linked to the terms of trade for their staples and the relative price of maize. Middle and better-off wealth groups are estimated to have three to five times the income of the poor. A typical “better-off” household would be made up of 5-10 persons, has control over 2-6 ha of land, owns 8-20 cattle and 15-30 goats. The “middle” household has 8-12 persons, 2-3 ha of land, 6-8 cattle and 10-15 goats. In comparison a “poor” household typically has 9-12 persons but only cultivates 0.5-2 ha of land and has 0-1 cattle and 2-5 goats.

Coping strategies for the better-off and middle wealth groups will include - purchasing cheaper and possibly lower quality foods, reducing input costs (including reductions in use of local labour), and utilizing savings and stocks, poorer groups will cope by seeking any type of employment, removing children from school, relying more on gifts, relying on less preferred foods and reducing meals and non-essential purchases. Three years of poor production in combination with the effects of the HIV/AIDS epidemic and other factors has seen the proportion of the poor in this zone increasing. This appears to be coming about as a consequence of increased expenditure on healthcare and the declining availability of household labour, which is lowering household agricultural production and income. There are growing difficulties in obtaining employment. Thus with less disposable income, agricultural inputs are neglected, further reducing yields in what is a downward spiral of increasing poverty.

### **Current Situation**

Due to the late arrival of the rains, maize production in 2003/2004 is expected to be 50% of normal and cash crops are only expected to realize 30-40% of normal. In some areas the reduced production of the maturing maize has been affected by unseasonably heavy rains and moist-humid conditions in March and April. Yields of maturing crops may well be reduced by cob rot and fungal infections. The situation within the zone is by no means uniform. In one community visited (in the far north) conditions have been very favourable and the poor are expected to harvest 5 or 6 50 KG bags of maize per family. Elsewhere, particularly in the middle and lower areas of the Middleveld many communities were affected by the late rains and failed to establish a crop. Moreover many of the poor in these communities have been unable to replant and to take advantage of the rains that came between February and April. In some situations production of sweet potatoes and tarrows has been unaffected by the adverse conditions - highlighting their potential role providing an important alternative to maize mono-cropping.

At the time of the assessment in late April grazing conditions in the Dry Middleveld were judged to be ‘good’ due to the significant level of rains received in February, March and April. The amount of grazing pasture has improved due to the increased extent of fallow lands this year. However, the full potential of the livestock component in the farming system is being lost due to the uncontrolled grazing regime. The adverse weather conditions in September to December seriously affected the flowering process (trees failed to blossom). Access to wild foods and fruits is therefore well below normal this year.

## Market Access and Prices

In only one of the communities visited (ka Ndwandwe in Northern Hhohho) will the turnover in agricultural employment be normal. Elsewhere there has been a decrease in employment that is directly related to the reduced area of land under cultivation and reduced levels of production. Trade in livestock is depressed. The Swaziland Meat Industry is no longer buying cattle in the chiefdoms visited and the local market is not reliable. Furthermore, two chiefdoms were affected by foot-and-mouth disease. Trade in maize as a cash crop is depressed as the distance to the Matsapha market is far, transport costs are high and low official maize prices in combination with high production costs renders the exercise non-viable. The trade in non-food production is particularly depressed after three years of drought. Materials including firewood, grasses, likhwane, incoboza, thatching grass and other natural/plant products are scarce. Trading activities are thriving and appear to be normal as many are trying to survive by the running of small roadside businesses – vegetable markets, phone spazas etc. Food markets for staples such as maize, maize-meal, beans and cooking oil have come under enormous pressure over the past few years and by all accounts have expanded to meet the greater dependency on food purchase as a major source of food in these communities. Food price inflation over the period 2002/2003 and 2003/2004 is estimated to be about 20%. Cattle prices over the same period have gone up by 30% due to their scarcity brought about by loss of animals due to drought and foot and mouth.

## Community Priorities

**Water:** In a situation where most of the communities have no access to domestic water and irrigation water for agricultural production and where most of the rivers dry up and there are no dams, almost all the communities identified the need to look into water development issues. Domestic water supplies are inadequate. Water for irrigation would improve livelihoods and nutrition through expanded vegetable production that would be consumed and traded.

**Health:** Communities cited HIV/AIDS as the main cause of illness and death in their communities and commented on the resulting high numbers of orphans and vulnerable children. Chiefdom of Mashobeni (Northern Hhohho) mentioned a figure of 250 orphans who are now becoming a burden with social community systems seemingly unable to cope given the need to feed, clothe and educate the children.

**Education:** While there have been a number of responses to assist the community in dealing with HIV/AIDS and its effects there is an urgent appeal to enable the communities to keep these children in school including subsidised or free primary education for orphans and/or primary school feeding schemes.

Other issues included the need to break the tillage constraint and the need to expand local employment opportunities.

## Problem specification (figures represent % change according to normal – normal =100)

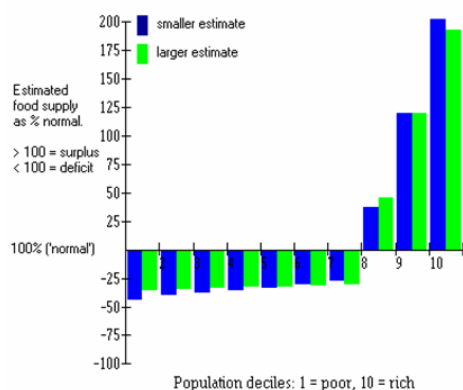
Production	Food Crops	L'stock/Grazing	Wild Foods	Gifts/Relief	Cash Crops		
Scores	50-60%	70-80%	50-60%	30-40%	30-40%		
Markets	Employment	Livestock	Cash Crops	NFP	Trade	Food Purchase	Food Price
Scores	50-75%	50-75%	75-100%	75-100%	75-100%	100%	125%

NFP = Non-Food Production

## Zone Outcome

The **poor** wealth-group in the DM normally derives their food access from – food crops (21%), meat/milk (2%), wild foods (2%), gift/relief (24%) and purchases (51%). The simulation has estimated the outcome for the year to be - food crops (12%), meat/milk (1%), wild foods (0%), gift/relief (9%) and purchases at (32%). This sums up to 54% of requirements or an initial “crude deficit” estimate is 46% of total food access. Coping strategies of seeking additional employment managed to reduce the deficit by 4%, additional petty trade by 3% to a **final result of 39%**.





The **middle** wealth-group normally derives their food access from – food crops (31%), meat/milk (13%), wild foods (0%), gift/relief (7%) and purchases (49%). The simulation has estimated the outcome for the year to be - food crops (17%), meat/milk (9%), gift/relief (2%) and purchases at (30%). This sums up to 58% of requirements or an initial “crude deficit” estimate is 42% of total food access. Coping strategies of using foods stocks reduced the deficit by 4%, seeking additional employment managed to reduce the deficit by 4%, additional other trade by 3% and redistribution within the community reduced the deficit by a further 1% to a **final result of 30%**.

The **better-off** households in the DM did not incur any deficits this year.

## **Lowveld Cattle, Cotton and Maize Livelihood Zone**

### **Livelihood Patterns**

In the Lowveld Cattle, Cotton and Maize Livelihood Zone the socio-economic breakdown defines households' access to food and income and their overall livelihood strategy. The poor gain only 10-20% of food from their own production and commonly purchase the majority of food (50-60%) and supplement with collection of wild foods and gifts from relatives and friends. Clearly food prices are important if households are heavily reliant on purchase, and crop failure in this zone does not necessarily spell a disaster for the poor. Middle and better off groups are much more vulnerable to crop failure because they get 40-50% and 50-60% of their food from their own crop production respectively. Food access is normally supplemented by purchase and milk / meat products from livestock holdings. The poor in the zone are heavily reliant on employment/remittances for the vast majority of their income (70-90%) which in turn is used to purchase food and non-food production sales make up most of the gap. Middle and better off groups have more diversified income strategies with employment / remittances, livestock sales, cash crop sales, non-food production and petty trade all playing a significant role. Rainfall is commonly low in the zone and is often spatially and temporally erratic. Households are still suffering from a crop failure in the 2002/3 season.

### **Current Situation**

Maize remains the dominant staple crop in the LCCM. Late and intermittent rains up to December affected the planting season with low soil moisture making germination challenging. Difficulties of accessing tractors in a timely fashion added to the low area planted during the season. Tractor support is paid in advance and is non-refundable. When adequate rains fall middle and better off farmers are keen to secure tractors for ploughing. However, after rain falls, demand for tractors reaches a peak and only a small percentage of farms are ploughed at the optimum time. When good rains finally arrived in January, national radio forecasts of below normal rainfall and the difficulty of getting hold of tractors caused farmers to limit their overall cultivation. There is a good outlook for crops that were planted late in 2003 and survived through the drier periods and then thrived in the wet January and February period. Unfortunately, the on-going rainfall in March and April has reduced the effective yield of these plants because a high level of moisture has caused some cob rot. Bean production is typically low in the zone and where it is produced it is mostly by middle income households for their own consumption. Low rainfall radio forecasts encouraged some households to grow beans but the unseasonably heavy rainfall between January and March spoiled the bean harvest. Many households are keen to grow vegetables as cash crops but access to water is the biggest constraint.

Livestock condition and productivity improved during the season but started from a very low point. Cattle death and illness was a major problem during the second half of 2003. It is reported that many cattle aborted thus reducing productivity. However, the improved rainfall in 2004 provided good pasture for livestock and productivity is now good. Access to wild foods has been a problem during the season because the dry period limited growth and development of wild foods. Furthermore, access to the various forested areas has been affected by the forestry industry. The cycle of forestry production means that wild food habitats are detrimentally affected and in some instances access to these areas has been restricted. Increasing poverty is cited as the main reason why many people have become reluctant to give free gifts of food within communities. It is reported that there is now pressure to sell goods rather than give them for free to a needy friend or relation.

### **Market Access & Prices**

Access to employment markets, which play such an important role for poorer households in the zone, has been depressed because much of the employment is based around local cash crop and

other agricultural production (such as cotton). It is reported that some commercial companies are closing down and laying off workers and where casual employment is being offered, foreigners and in particular Mozambicans may take up the labour opportunities accepting a lower wage than Swazis. Access to cash crop markets is slightly depressed because sale of cotton has become more difficult as depots have closed around the country. The depot at Big Bend is the only point of sale for farmers and transport costs can be high. Non-food production, trade and food purchase markets are reported to be normal. Prices have increased for foodstuffs and livestock by 15%. Improved condition of livestock is reported to be the main reason for increases in cattle price, with growing demand and reasonable prices from the Swaziland Meat Industry.

### Community Priorities

Access to water is the number one priority for communities in the zone. Communities were keen to access water predominantly for household consumption and irrigation of vegetables and cash crops. Many communities report that they have consulted with rural water supply authorities and studies have been carried out. The communities state they have started to collect community funds to contribute towards water projects and some have started supporting the necessary infrastructure. Access to good quality health facilities was also a priority for communities. Distances to clinics are reported to be too far to travel, especially when ill. In some instances rivers have to be crossed to reach health facilities, making access difficult in the rainy season.

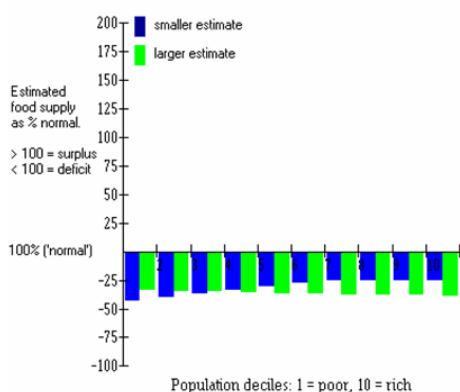
### Problem Specification (figures represent % change according to normal – normal = 100%)

Production	Food Crops	L'stock/Grazing	Wild Foods	Gifts/Relief	Cash Crops		
Scores	30-40%	70-80%	70-80%	30-40%	30-40%		
Markets	Employment	Livestock	Cash Crops	NFP	Trade	Food Purchase	Food Price
Scores	50-75%	100%	75-100%	75-100%	75-100%	100%	125%

NFP = Non-Food Production

### Zone Outcome

The **poor** wealth-group in the LCCM normally derives their food access from – food crops (15%), meat/milk (2%), wild foods (15%), gift/relief (12%) and purchases (56%). The simulation has estimated the outcome for the year to be - food crops (5%), meat/milk (2%), wild foods (11%), gift/relief (4%) and purchases at (34%). This sums up to 56% of requirements or an initial “crude deficit” estimate is 44% of total food access. The coping strategy of seeking additional employment managed to reduce the deficit by 6% and additional livestock sales reduced it further by 3% to a **final result of 35%**.



The **middle** wealth-group normally derives their food access from – food crops (49%), meat/milk (8%), wild foods (8%), gift/relief (2%) and purchases (33%). The simulation has estimated the outcome for the year to be - food crops (19%), meat/milk (6%), wild foods (6%), gift/relief (0%) and purchases (31%). This sums up to 62% of requirements or an initial “crude deficit” estimate is 38% of total food access. Coping strategies of using seeking additional employment managed to reduce the deficit by 5%, and additional livestock sales reduced it by reduced the deficit by a further 2% to a **final result of 31%**.

The **better-off** wealth-group normally derives their food access from – food crops (55%), meat/milk (12%) and purchases (33%). The simulation has estimated the outcome for the year to be - food crops (19%), meat/milk (9%), and purchases (32%). This sums up to 60% of requirements or an initial “crude deficit” estimate is 40% of total food access. Coping strategies of seeking additional employment managed to reduce the deficit by 5% and additional livestock sales reduced the deficit by a further 2% to a **final result of 33%**.

## **Lowveld Cattle and Cotton Livelihood Zone**

### **Livelihood Patterns**

Agricultural production in the Lowveld Cattle & Cotton (LCC) Livelihood Zone is typically low even in years when rainfall is described as normal. Rainfall may be as low as 200mm per annum. The majority of poor households usually receive only 10%-15% of their annual food requirement from growing their own crops. The picture is similar for the middle income groups with 25%-35% of their annual food requirements coming from their own production. The majority of the food consumed is purchased by both the poor and middle income groups which combined are approximately 88% of the total population of the zone. In order to meet their annual needs the poor gain the majority of their income (which in turn is used to purchase food) from local employment opportunities and remittances (between 50-70%). The middle and better off wealth groups are more diversified and rely on a combination of income from employment, sale of cash crops, livestock sales and other trading activities. Overall, vulnerability of the wealth groups is very different with poorer groups more vulnerable to a fall in employment opportunities while middle and better off wealth groups will suffer more from shocks to cash crop and livestock.

### **Current Situation**

The LCC has suffered from a complicated combination of shocks that have detrimentally affected livelihoods of all socio-economic groups. Rainfall was late and intermittent between September and December 2003 making planting a risky and difficult business. After three years of below normal rains and grazing conditions, cattle productivity was very low and many cattle succumbed to exhaustion and death in the first half of the agricultural season. Many households could not afford to re-plant when significant rains finally came in January. The rains that fell between January and March were unseasonably heavy and their impact was double edged. Improved water access and grazing resulted in a vast improvement in cattle condition but also resulted in the decimation of the legume harvest with a complete failure anticipated. Overall maize production will be very low mostly because of the dry period up to January. The overall maize production for the zone verges on crop failure but some planting of maize in January will provide some production for a number of households.

Cash crops have suffered in a similar manner to food crops because of the temporal variation of rainfall in the zone. Sale of maize surpluses are highly unlikely. Cotton production will be low with an average of 1.5 bales of cotton expected by the few farmers that engaged in production this year. Inaccessibility to inputs and water logging were cited as damaging influences on production. Wild food availability has been suppressed by the dry period and compounded by water logging in the final stages. However, some wild foods (e.g. Mathundvuluka, Mantulwa and Tincozi) have been available following the rains.

### **Market Access & Prices**

Access to employment markets, which play such an important role for poorer households in the zone, has been depressed because much of the employment is based around local cash crop and other agricultural production. In addition reports of increasing levels of retrenchment both nationally and in South Africa, which when combined with increasing morbidity levels, have reduced access to employment markets. Livestock, cash crop, trade and food purchase markets are considered to be depressed. Scarcity of raw materials (e.g. firewood & grasses) for non-food production was affecting access to markets. It was reported that maize is still being transported from the Highveld for sale at high informal prices in the zone despite the food aid provision. Maize availability was depressed because of closure of some retail outlets and distance to markets was increasing.

Food prices have increased in communities alongside the distribution of food aid. It was reported

that prices are inflated because food aid provides household needs for 3 weeks of each month and after this households are forced to purchase on the market – at a time when traders are trying to make up for a slowdown in sales (possibly due to the food aid provision). Livestock prices (and cattle in particular) have increased because pasture is reported to be in the best condition for many years. Households are now keen to hold onto their assets at the present time and forced sale is not widespread.

### Community Priorities

Access to water is the number one priority for communities in the zone. Communities were keen to access water predominantly for household consumption and irrigation of vegetables and other cash crops. Roads were also cited as a priority for the communities, particularly because heavy rainfall can damage the roads and sometimes make them useable. Some communities have developed revolving funds to implement water projects and they have requested support from the local Inkundla centres. Several NGOs are working in the area such World Vision and LDS as well as UNICEF, NERCHA and input support from Vunisa for cotton production.

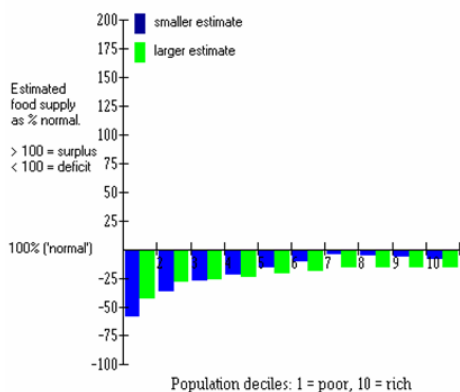
### Problem specification (figures represent % change according to normal – normal =100)

Production	Food Crops	L'stock/Grazing	Wild Foods	Gifts/Relief	Cash Crops		
Scores	20-30%	70-80%	50-60%	30-40%	0-10%		
Markets	Employment	Livestock	Cash Crops	NFP	Trade	Food Purchase	Food Price
Scores	50-75%	50-75%	75-100%	50-75%	50-75%	75-100%	125%

NFP = Non-Food Production

### Zone Outcome

The **poor** wealth-group in the LCC normally derives their food access from – food crops (15%), meat/milk (2%), wild foods (8%), gift/relief (13%) and purchases (62%). The simulation has estimated the outcome for the year to be - food crops (4%), meat/milk (2%), wild foods (4%), gift/relief (3%) and purchases at (24%). This sums up to 37% of requirements or an initial “crude deficit” estimate is 63% of total food access. The coping strategy of seeking additional employment managed to reduce the deficit by 16% and additional petty trade of 2% produced a **final result of 45% - the highest deficit of any group in the country.**



The **middle** wealth-group normally derives their food access from – food crops (30%), meat/milk (15%), wild foods (2%), gift/relief (2%) and purchases (51%). The simulation has estimated the outcome for the year to be - food crops (8%), meat/milk (11%), wild foods (1%), gift/relief (0%) and purchases at (50%). This sums up to 70% of requirements or an initial “crude deficit” estimate is 30% of total food access. Coping strategies of using additional employment managed to reduce the deficit by 8%, additional livestock sales reduced the deficit by 7% and other petty trade reduced the deficit by a further 6% to a **final result of 9%.**

The **better-off** wealth-group normally derives their food access from – food crops (39%), meat/milk (21%), wild foods (2%), and purchases (38%). The simulation has estimated the outcome for the year to be - food crops (11%), meat/milk (16%), wild foods (2%), and purchases at (38%). This sums up to 67% of requirements or an initial “crude deficit” estimate is 33% of total food access. Coping strategies of using seeking additional employment managed to reduce the deficit by 9%, additional livestock sales reduced the deficit by 7% and petty trade further reduced it by 6% to a **final result of 11%.**

## **Lomahasha Trading and Arable Livelihood Zone**

### **Livelihood Patterns**

The current year assessment in Lomahasha has been combined with an updating exercise of the livelihood profiles in this particular area.<sup>22</sup> The latest assessment suggests that the emphasis has shifted from the trading to the arable component of the livelihoods and that the zone name might be re-arranged to read Lomahasha Arable and Trading. In terms of the main elements in the ranking is 1 Cash Crops (cotton, maize & groundnuts), 2 Food Crops (maize, legumes & tubers), 3 Livestock, 4 Trade and 5 Employment. Cash and food crops are more important than trade which is ranked fifth as an element in the livelihoods.

Wealth status very much affects the livelihood profiles. The poor normally secure about 15% of the food needs from their own food crop production. The middle and better-off normally produce about 50% of their total food access from their own farms. The poor concentrate on a combination of purchases, gift/relief sources and wild foods to top up the remaining 85% of their food needs. Cash sources for the poor are limited to casual employment/labour, firewood collection, weeding, and fetching water - (58%), non-food production (34%) and some small livestock sales (8%). The middle and better-off benefit from their own livestock as a source of food (12-14%) and food purchases to make up the balance of their needs. Their cash incomes sources are more diverse and include employment, livestock sales, cash crops, non-food production and trade.

### **Current Situation**

Generally very poor food and cash crop production is expected in Lomahasha this year. The main factor has been very poor start to the season and the three-month delay in the plantings of crops. From an initially 'bad' situation, grazing and livestock conditions have improved following the arrival of the rains in mid January. At the time of the March 2004 assessment maize availability was limited and prices were high with only limited amounts of maize being traded into Lomahasha from the Swazi Highveld.

Maize production as 'own food' is likely to be in the range of 0-20% of normal with the poor expected to get 0-6% of normal this year. The other food crops - groundnuts, sweet potatoes, cassava, cowpeas and jugo beans are produced in small quantities. Many of these crops have failed dismally this year. Cotton and maize have been the main cash crops in this area. Cotton production in the Lomahasha has mirrored the collapse of the cotton industry nationally. Cotton has been an important source of cash income and employment in the community in the not too distant past. Livestock has been affected by increasingly difficult grazing conditions as the weed *Chromolena Odorata* (Sandanezwe) is displacing grass throughout the Veld in the north-east of the country. The abnormal weather patterns this year have adversely affected the availability of wild foods and fruits.

### **Market Access and Prices**

Overall employment access is estimated to be quite depressed at 50-75% of normal. All three categories (permanent jobs, seasonal and casual) are down but with seasonal and casual work particularly affected. Seasonal employment in the sugar and citrus sectors has been affected by the fluctuation in production and the emergence of labour-saving mechanisation e.g. new irrigation technology. The opportunities for casual employment in cotton production have been drastically reduced overtime. A reduced area under maize cultivation this year has limited the demand for casual employment. Cash crop markets are constrained. The cotton market is

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<sup>22</sup> For logistical reasons the November- December 2002 exercise was unable to update the livelihood profiles at that time

depressed by virtue of the closure of local buying stations and distance from Big Bend. The maize trade is depressed by the following factors: distance to the market, high transport costs and low (unattractive) prices.

Local maize grain prices have increase by 10-20% between 2002/2003 and 2003/2004. This has come about as a result of a poor supply and increased demand. Although there is a General Food Distribution (GFD) ongoing in the area vegetable oil and bean prices have increased by 5-17% and 8-16% respectively. Livestock prices have increased significantly (10-40% for oxen, 20-60% for goats and 25-30% for chickens) mostly reflecting their improved condition.

### Community Priorities

The four main sectors prioritized by the communities interviewed are:

1. Water; 2. Employment; 3. Agriculture; 4. Health.

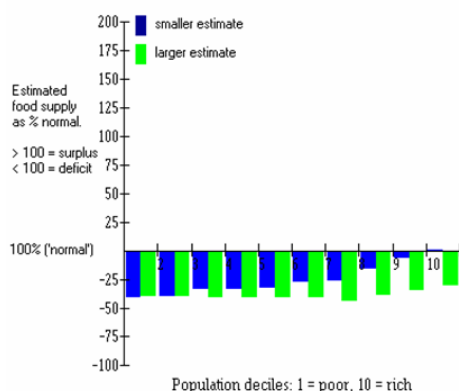
**Problem specification** (figures represent % change according to normal – normal =100)

Production	Food Crops	L'stock/Grazing	Wild Foods	Gifts/Relief	Cash Crops		
Scores	0-20%	80-90%	50-60%	30-40%	0-20%		
Markets	Employment	Livestock	Cash Crops	NFP	Trade	Food Purchase	Food Price
Scores	50-75%	75-100%	50-75%	50-75%	50-75%	75-100%	125%

NFP = Non-Food Production

### Zone Outcome

The **poor** wealth-group in the LTA normally derives their food access from – food crops (20%), meat/milk (4%), wild foods (17%), gift/relief (12%) and purchases (47%). The simulation has estimated the outcome for the year to be - food crops (2%), meat/milk (4%), wild foods (10%), gift/relief (0%) and purchases at (27%). This sums up to 43% of requirements or an initial “crude deficit” estimate is 57% of total food access. Employment coping strategies reduced the deficit by 20% to a **final result of 37%**.



The **middle** wealth-group normally derives their food access from – food crops (40%), meat/milk (12%), wild foods (15%), and purchases (33%). The simulation has estimated the outcome for the year to be - food crops (3%), meat/milk (11%), wild foods (8%), and purchases at (21%). This sums up to 43% of requirements or an initial “crude deficit” estimate is 57% of total food access. Employment coping strategies reduced the deficit by 22% to a **final result of 35%**.

The **better-off** wealth-group normally derives their food access from – food crops (43%), meat/milk (14%), and purchases (43%). The simulation has estimated the outcome for the year to be - food crops (4%), meat/milk (12%), and purchases at (42%). This sums up to 58% of requirements or an initial “crude deficit” estimate is 42% of total food access. Employment coping strategies reduced the deficit by 27% to a **final result of 15%**.

## **Lubombo Plateau Livelihood Zone**

### **Livelihood Patterns**

Agricultural production (for food and cash crops) is higher in the Lubombo Plateau (LP) Livelihood Zone than in the Lowveld in terms of household food security because its elevated position stimulates a higher rainfall pattern. Wealth disparities portray stark livelihood differences. While the poor group only gains 0-10% of annual food requirements from food production by the household, middle income (30-40%) and better off (60-70%) households gain much higher levels of food from household cultivation. Subsequently access to food by the poor is dominated by purchase of food which is supplemented by contributions from wild foods and gifts. The majority of income for this food purchase comes from employment which in turn is supplemented by non-food production such as grass mat production. The middle and better off have more diversified income strategies with cash crops (such as cotton and mostly importantly cassava) playing an important role in combination with trading and non-food production activities.

### **Current Situation**

Rainfall was below the long term norm until the beginning of January – when a succession of storms pushed rainfall levels for January and early February well above the long term average. The LP has suffered from below normal production this year adding to a succession of seasons with below normal production. The communities report that cattle theft has reduced the ability of farmers to prepare land and cultivate at the optimum times just after rainfall because oxen are no longer readily available. Delays occur as communities wait for access to the limited supply of Tinkhundla tractors or privately owned oxen for ploughing. Many households gave up on maize cultivation this season because the rains arrived so late. In addition, meteorological forecasts broadcast over the radio provided an outlook of below normal rainfall between January and March 2004 discouraging investment in inputs. For those with the requisite resources, two distinct planting phases took place in the LP. A selection of people planted in December but many plants failed to mature because of low soil moisture levels. Households that retained some inputs planted in January. This crop was anticipated to do quite well but water logging in some areas and above average rainfall during March and April has resulted in some cob rot setting in during the drying phase. When the rains arrived in January, most household focused on sowing of maize seeds and by the time this phase was complete the period for sowing legumes was almost over. Very low legume yields are expected because the unseasonably high rains since January resulted in water-logging in January/February and rotting of plants and fruits in March.

Cash crops have suffered in a similar manner to food crops because of the temporal variation of rainfall in the zone. Sugar cane is not grown on the LP. Cotton production has been quite important for some communities particularly for the middle and better off groups. Difficulties of accessing the market and prices were cited as reasons for low levels of cotton production. The main cash crops are sweet potatoes and cassava. A small reduction in cassava production has been experienced (20-30% below normal) but sweet potato production has seen a major decline (60-70% below normal) mostly because of the erratic rainfall and households prioritising maize production before cash crop production.

High levels of precipitation post January have resulted in vastly improved grazing conditions for livestock. Fewer cattle diseases have been reported this year and cattle condition is reported to be good. Wild food availability is reported to be less than in 2002/3. Fruit formation was limited by the dry period between October and December. Much of the fruit that survived the dry spell was ruined by the deluge of rain during January (with the exception of Tincozi and Mfomfo). Fishing grounds were reported to be operating normally, although only some communities engage in fishing. It is the poor group that normally engage in fishing activities.



### Market Access & Prices

Access to employment markets, which play such an important role for poorer households in the zone, has been depressed because much of the employment is based around local cash crop and other agricultural production (e.g. sugar cane related employment, cotton picking, and weeding maize). In addition reports of increasing levels of retrenchment both nationally and in South Africa, which when combined with increasing morbidity levels probably because of HIV/AIDS, have reduced access to employment markets. Cutbacks by the sugar cane industry, mostly because of the dry October – December period, affected many households' incomes in the LP. Livestock, cash crop, non-food production and trade markets are considered to be operating normally. The foot and mouth quarantine for cattle is now a long-standing affair but does mean that livestock marketing is limited to the LP only. Livestock prices have increased by 40-50% compared to the same time last year mostly because cattle are in such good condition. A scarcity of maize meal and beans has increased food prices on the plateau by 10-20% compared to last year. It will be important to continue to monitor these prices because, as shown above, the purchase of maize and other food stuffs is the main route to ensure food security for the majority poor households on the LP.

### Community Priorities

Access to water is the number one priority for communities in the zone and this is partly because previously functioning boreholes have broken down. Communities were keen to access water predominantly for household consumption and irrigation of food and cash crops. The communities report that they do not have funds to maintain the water system however efforts have been made by communities to collect funds to contribute towards a scheme that may help support water access. The second priority for communities is access to infrastructure and in particular an improvement in road condition. It was reported that a survey was carried out to map a new road but the project has seen little progress since the previous MP, who was spearheading the effort, was not re-elected. World Vision are carrying out a range of development activities in the communities on the LP and WFP and NERCHA support with food aid support for orphans and vulnerable persons.

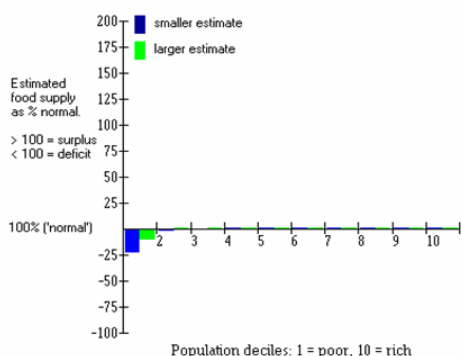
### Problem specification (figures represent % change according to normal – normal = 100)

Production	Food Crops	L'stock/Grazing	Wild Foods	Gifts/Relief	Cash Crops		
Scores	50-60%	90-100%	50-60%	30-40%	70-80%		
Markets	Employment	Livestock	Cash Crops	NFP	Trade	Food Purchase	Food Price
Scores	50-75%	100%	75-100%	100%	100%	100%	125%

NFP = Non-Food Production

### Zone Outcome

The **poor** wealth-group in the LP normally derives their food access from – food crops (4%), meat/milk (2%), wild foods (16%), gift/relief (16%) and purchases (62%). The simulation has estimated the outcome for the year to be - food crops (0%), meat/milk (2%), wild foods (8%), gift/relief (6%) and purchases at (41%). This sums up to 57% of requirements or an initial “crude deficit” estimate is 43% of total food access. The coping strategy of seeking additional employment managed to reduce the deficit by 9% and additional other trade reduced it further by 21% to a **final result of 13%**.



The **middle** and **better-off** households in the LP did not incur any deficits this year but also did not produce a surplus. They are hovering around normal with little to spare.