

# Food Security Monitoring Report

## Malawi

### January 2005

Food Deficit Areas: January 2005 – March 2005



MALAWI  
Vulnerability  
Assessment Committee

Malawi  
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SADC FANR  
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This document contains the views and findings of the MVAC but does not necessarily reflect the views of the Government of Malawi, any single member of the MVAC or any of the donors or funding agencies.

## Executive Summary

In May 2004, the Malawi Vulnerability Assessment Committee (MVAC) completed a forecast of acute vulnerability to food insecurity in Malawi, the aim of which was to provide an early warning for planners, decision- and policy-makers to effect a contingency against severe food shortages, most of which were expected to occur later in the year.

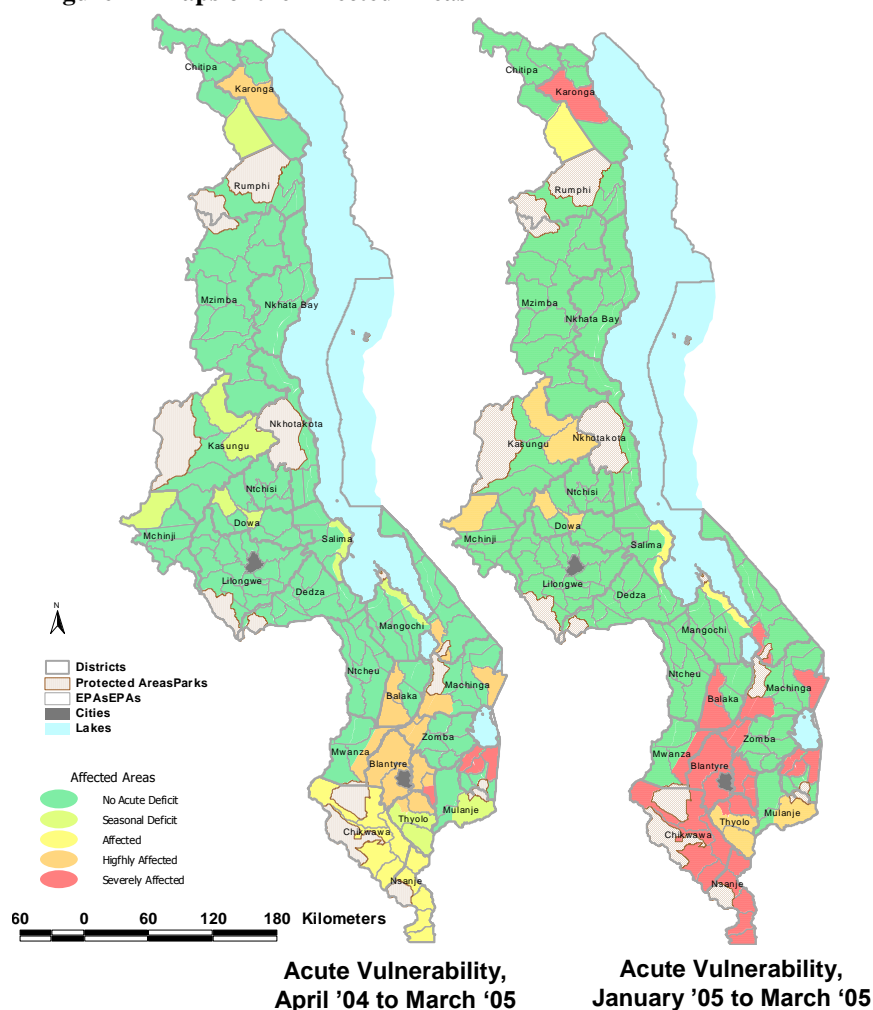
Details of this forecast were published in a report (the MVAC May Report); however, many of the factors that may exacerbate or ameliorate the situations described in this report were unknown at the time. Therefore, scenarios were constructed that were based on assumptions, necessitating the testing and confirmation of these assumptions as events for the year became clearer.

Using data drawn from a variety of secondary sources, the MVAC has updated and corrected the analyses where more accurate data has now become available, has agreed on the most likely scenario for staple prices for the rest of the year and has reviewed all of the assumptions that were used in deriving the scenarios.

Principally, these modifications include:

- Crop Production
  - Staples: where Round Two Crop Estimates figures were used to calculate crop problem specifications, they were replaced with Round 3 data.
  - Cash crops: Data of actual sales were obtained from the Tobacco Control Commission and from Cotton Buyers; these were used to adjust the projected sales of these two cash crops. Round Three Crop Estimates data also helped in redefining problem specifications for Fruit and vegetable sales. In May, these figures were still unknown.
- Staple prices. Evidence has shown that the staple price have more or less followed a typical trend this year, in line with prevailing inflation rates (i.e. **Scenario 1** in the May Report). A few areas are experiencing lower-than-inflation adjusted prices for staple this year.
- Ganyu. Both ganyu-for-cash and ganyu-for-food have been buoyed by:
  - A good growing season this year (despite some setbacks)
  - Good supplies of food (largely those brought in over the border from Mozambique) and some food aid supplies
  - Competition for labour from Food-For-Work projects that increased local supplies and helped keep wage rates high enough to cover poor households' needs.
- Cash crop prices. All cash crops gave returns that were more favourable than what was expected in May.
- Fishing (lakeshore area only). Fisheries Department data suggest that the catch this year is not considerably reduce compared to the last few years.
- Self-employment. Options for self-employment remain the same in most

**Figure 1 - Maps of the Affected Areas**



areas.

- Length of the season. Parts of Karonga and Chitipa district in the North experienced a plague of Army Worm just after planting. Although the worms have been brought under control, farmers are forced to replant, which costs them one extra month of the current season.

Details of these changes are shown in **Table VI** on page 16 in **Appendix II**.

Finally, the VAC **included interventions that have already taken place**. The VAC did **not** include interventions that are planned or scheduled; this is because it is hoped that the VAC's information will influence planned interventions. Food aid is the most significant of these interventions.

These new problem specifications are used to calculate food energy deficits *over the whole year*, expressed as a percentage of the minimum average energy requirement, or 2100 kcal<sup>1</sup> per person per day, for households in the affected areas. Also, the cash required by each household to overcome its deficit is calculated as well. A further calculation was made to help determine the deficits for the shorter 'hunger period' of January to March, 2005. Obviously, the deficits in the 'hunger period' are greater than those that are averaged for the whole year. Both these deficits figures for each area are mapped in **Figure 1** on page 3. A detailed breakdown of these deficits is presented in **Table IV**, page 10.

**Table I - Missing Food Entitlements and their Cash Equivalents for Malawi during the Period April 2004 to March 2005**

	Whole Year	Jan-Mar 2005
Overall Population Affected	1,301,800	
Missing Food Entitlements (maize equivalent)	37,550 MT	29,720 MT
Cash Equivalents to the MFE	MK 1.153 billion, US\$ 10.78 million, € 9.08 million or £5.82 million	

As would be expected, household food deficits are higher in the last three months of the agricultural year than averaged over the whole year. For some parts of the country, households may experience no average deficit for the year but in the 'hunger season' it appears. Areas with this situation are described as having 'seasonal deficits'.

The deficits are then used to calculate the total **missing food entitlement**<sup>1</sup>. The missing food entitlement is the total amount of cereal (maize) that is needed to ensure that households are able to meet their *minimum* food energy requirements<sup>2</sup>. The

national missing food entitlements for this year are given in **Table I**, above.

The analysis by the MVAC excludes 'extreme' coping strategies. These are strategies that the household may embark on that will be detrimental to their health, their future livelihoods or to the environment (in as much as their livelihoods are sustainable). Examples of extreme coping are taking children out of school, risky income activities, reducing intake to well below the accepted minimum, etc. Without interventions, households will resort to extreme coping; there is evidence of this having taken place in the monitoring and surveillance information. The question perhaps should not be: "will people survive?" but rather: "at what cost will they survive?"

The MVAC in *forecast* a missing food entitlement of 56,030 MT for the whole year (**Scenario 1**) in May; the astute will have noticed that this analysis has resulted in a substantial drop to 37,550 MT (a drop of 18,480 MT or 33%). The reasons for this are as follows:

- Food availability has been better than was expected, thanks to an steady stream in imports by the informal sector, mostly from Mozambique.
- Ganyu availability has been quite good, partly due to stable food supplies and good cash flow for the middle and better-off.
- There has been a coordinated humanitarian response to the earlier forecast; this has had a double impact: it has provided direct resources to the poor (largely food aid) and has helped stabilise household and village economies.

Low incomes continue to dog the poor and limit their options for coping with shocks or improving their standards of living.

Details of the total missing food entitlements and the cash required to replace them are given in Appendix II, **Table VIII**.

<sup>1</sup> The term 'missing food entitlement' is used rather than 'national deficit' because the latter term is usually associated with the *shortfall in production* or a *shortfall in availability* (as defined in the food balance sheet). The shortfall in production tells us how much food needs to be imported in order to meet local *average* consumption but it does not tell us whether people will be able to get their hands on that food. The missing food entitlement is the sum of all the food that is missing at household level, *after* households have exhausted all the options they have for obtaining it. It therefore represents the total missing calories from people's intake or consumption, rather than from their production.

<sup>2</sup> For simplicity, other nutritional needs such as proteins, micronutrients, etc. are not included in the calculations. This statement by no way implies that these needs are not also important.

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## Glossary of Abbreviations Used in this Document

AAH	– Action Against Hunger
ADD	– Agricultural Development Division – Spatial unit used by the Ministry of Agriculture, Irrigation and Food Security. It usually comprises two or three districts but is smaller than a region.
EPA	– Extension Planning Area – sub-district spatial unit used by the Ministry of Agriculture, Irrigation and Food Security
FAO	– Food and Agriculture Organization of the United Nations
FEWS-NET	– Famine Early Warning System Network
LZ	– Livelihood Zone
MEP&D	– Ministry of Economic Planning and Development
MK	– Malawi Kwacha, the local currency in Malawi. At the time of writing US\$1 = MK 107 and € 1 = MK 127
MoA	– Ministry of Agriculture
MVAC	– Malawi Vulnerability Assessment Committee
NSO	– National Statistics Office
RDP	– Rural Development Programme, a spatial unit used by the Ministry of Agriculture, Irrigation and Food Security. RDPs are now equivalent to districts.
RVAC	– Regional Vulnerability Assessment Committee
SC-US	– Save the Children (United States)
UNDP	– United Nations Development Programme
UNICEF	– United Nations Children’s Fund
VAC	– Vulnerability Assessment Committee (see also MVAC, RVAC)
WFP	– World Food Programme of the United Nations

# Food Security Monitoring Report – January 2005

## Outlook

### Introduction

In May 2004, the Malawi Vulnerability Assessment Committee (MVAC)<sup>3</sup>, a consortium of organisations working to assess and reduce vulnerability in Malawi, conducted an assessment that aimed at forecasting *acute* vulnerability over the agricultural year from April 2004 to March 2005.

This assessment drew on available data at that time. Available data included the latest round of crop the estimates survey, VAC field data, commodity price time-series from the Ministry of agriculture and remote sensing data. Where data was not available, assumptions and projections were made for many variables that affect households' access to food. These assumptions were grouped into two *scenarios*; the principle difference between them being the price rural households would pay for maize later on in the year.

The purpose of the exercise conducted for this report was essentially two-fold:

- To test and update the assumptions and forecasts used to construct the scenarios in May. Where possible, these were to be replaced with facts or data-derived figures.
- To compare outcomes and conclusions with important outcome data from independent sources. Examples of these comparisons are with nutrition data and with surveillance-derived indicators.

This report does not contain the same detailed data on each livelihood zone that was included in the May 2004 report. Rather, it details the important changes that have been discussed and the links between outcomes predicted by the VAC and those measured using other methods.

For a description of the methodology used in this assessment, see the 'Food Security Monitoring Report – May 2004', pages 6-7, Malawi Vulnerability Assessment Committee, 2004.

### Activities and Areas Covered in this Assessment

**Activities:** The MVAC used secondary-source data almost exclusively in this exercise, although input was gained from members who had recently completed field visits. The secondary sources were diverse and the data was prepared as follows:

- Data that were used as an 'input' in the calculations; usually these data are used to define the 'hazard' or the changes (environmental, economic or social) that are taking place this year, compared with the reference or 'baseline'. These data are called 'problem specifications' and are usually expressed as a percentage, calculated by dividing the figure for this year by the baseline figure<sup>4</sup>. These problem specifications were then compared with those calculated or assumed in May 2004 and were updated accordingly. The new problem specifications were used to calculate household food energy deficits and cash equivalents to the deficits; from this the total missing food entitlements and the cash equivalents to the missing food entitlements were derived.
- Data that were used to compare the outcomes of the MVAC's analysis with other outcome indicators, in particular nutrition data and the food stress index. The latter is an index compiled from surveillance data.

The data, the data sources and the indicators used are summarised in **Figure 2, Appendix I** on page 15.

**Areas Covered.** This assessment covered the whole country, although a balance has to be struck between detail and coverage. Small pockets of food insecurity may still exist in isolated villages or sections of an EPA, which did not show in the more aggregated data (EPA-level) that was used by the MVAC. The MVAC recognises this and does not dispute such local variations.

### Update of Previous Scenarios (Hazard Definitions)

<sup>3</sup> MVAC members include ministries from Government, Non-Government Organisations and United Nations agencies.

<sup>4</sup> For ease of calculation, the VAC expresses its percentage changes as a ratio, not as a difference ratio; for example, if this year's production is eight instead of ten units, the percentage change is expressed as 8/10 or 80%, rather than -20%.

In the context of the current analyses, a hazard is any event or factor, be it environmental, economic or social conditions that is likely to affect access to food or income at household level<sup>5</sup>. For the hazard to be incorporated into the analysis, it has to be expressed in quantitative terms, e.g. a 50% reduction in maize production, a 20% increase in maize purchase prices, etc. In May 2004, hazards were based on analysis of real data (largely crop production) where it was available, as well as assumptions that were defined by examining their causes and by looking at realities in previous years<sup>6</sup>. Assumptions had to be made because some of the important factors in households' access to food would only be determined by future environmental and economic conditions, which were not known at that time.

A key assumption that had to be defined was the price that households would have to pay for basic foodstuffs. For this, two possible scenarios were constructed:

- **Scenario 1** defined a situation where the staple purchasing price increased from the baseline at a *rate equivalent to the then prevailing rate of inflation* (which was just over 10%). This meant that the price would increase by nineteen percent from baseline (it was compounded over two years).
- **Scenario 2** defined a situation where the staple purchasing price increased from the baseline at a *rate equivalent to inflation plus 30 percentage points*, i.e. 49%.

### **The Food Balance Sheet, Exchange Rates and Inflation –the Macro Picture**

In order to determine which of these two scenarios occurred (or, indeed if the reality actually lies outside of both), it was necessary to first look at Malawi's overall food supply situation. Then, if imports were needed, this would imply that later on in the agricultural year local prices would be determined by external prices and the exchange rate between the Malawi Kwacha and the major currencies. Factors to consider included whether Government (or private traders) imported maize from regional suppliers when prices were lower (usually around July) and whether the savings from doing so would be able to offset against storage costs.

The Food Balance Sheet issued by the Ministry of Agriculture in November 2004 predicted a domestic food balance of 256,781 MT of maize equivalents and a food gap of 189,886 MT of maize equivalents. The food gap was calculated after net imports and exports were considered. The latter figure did include some food aid, Government imports and formal commercial maize imports but did not consider informal imports and exports<sup>7</sup>. The WFP/FEWS-NET report on Informal Cross Border Trade for December 2004 modifies the latter figure down to 169,041 MT, based on data of *actual imports* gathered by enumerators located at most of the important border crossings<sup>8</sup>. The report also highlights that monitoring of informal trade began after the initiation of the agricultural year<sup>9</sup> and this may account for an extra 20,000 MT or so<sup>10</sup>. Further, if food aid deliveries and planned deliveries are factored in as well, the food gap will then reduce by a further 65,000 MT, meaning that approximately 84,000 MT will still need to be imported from January to March in 2005<sup>11</sup>.

Assuming that the bulk of this will come through the informal market and that the bulk of the informal source of food is Mozambique<sup>12</sup>, then the exchange rate of the Malawi Kwacha to the Mozambique Metical will be a major factor in determining end prices for ordinary Malawians. Until recently, the Metical was more or less tied to the United States dollar but lately it has gained about 20%. The Kwacha/dollar exchange rate has been stable at around MWK 107 = USD 1.00, meaning that the stronger Metical poses a threat to food availability by potentially limiting the informal cross-border maize trade. However, it is also apparent that Malawi has goods that Mozambique citizens desire, and much of the trade is conducted in Malawi Kwacha anyway. Hopefully, prices inside Malawi should follow similar trends as those found in neighbouring trade centres. Supply on the Mozambique side has so far proved consistent, although there was a drop-off around November 2004. This may be due to a fall in demand rather than supply. Volumes have picked up again since then and food continues to cross the border.

A sudden exchange-rate fluctuation could upset this trade significantly and it is imperative for the sake of food security in many of the affected areas that *every effort is made to maintain exchange-rate stability*, at least until the next harvest in Malawi.

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<sup>5</sup> The change may occur very rapidly or its onset may be slow and less immediately noticeable.

<sup>6</sup> For example, time-series graphs of indicators for previous years were used as a comparison.

<sup>7</sup> The national food balance sheet also does not consider constraints and differences in the distribution of this food *within* the country.

<sup>8</sup> FEWS-NET and WFP, "Report on Informal Cross Border Trade, December 2004", Appendix 3.

<sup>9</sup> The 'agricultural year' begins in April, when the harvest starts coming in and border trade monitoring began in July.

<sup>10</sup> FEWS-NET and WFP, *ibid.* page 5, section 3.0.

<sup>11</sup> It should also be noted that capturing all the volumes of informally imported maize is a daunting task. The likelihood is that there are still imports that are unaccounted for and that this 'final' food gap figure is actually lower. Nevertheless, this analysis highlights the usefulness of this monitoring project and it also provides a very good *idea* of how informal cross-border trade is affecting supplies and commodity prices.

<sup>12</sup> FEWS-NET and WFP, *ibid.* page 2, section 2.1.

Hence, the exchange-rate stability, coupled with the active informal market, has ensured a stable supply of food on local markets in most parts of the country. The only exceptions to this are where markets are located far from either an international border or a good road and where prices can be 20-30% higher than elsewhere. This is, however, a pattern that repeats itself every year.

### The New Problem Specifications

Important hazard definitions or problem specifications are given in **Table II** below, while more detailed changes are provided in **Table VI** in **Appendix II**. Some of the remaining assumptions are discussed in **Box 1**.

**Table II - Changes to the Major Problem Specifications and Assumptions Defined in May 2004**

Important Indicator or Assumption Used	Changes to the Problem Specification	Justification
Staple Price	Most areas have experienced a situation close to the Scenario 1 (some are below that)	Prices have remained in line with inflation.
Crop production	Where Round 2 Crop Estimate figures were used, these have been replaced with Round 3 figures.	Round 3 figures are generally considered more accurate.
Cash crops and fishing	Generally, production was better than was expected in May	Figures released by the Tobacco Control Commission, Cotton buyers and Fisheries
Agricultural Ganyu (food and cash payment methods)	Availability is better than what was expected, wage rates remain the same as expected in May (which is the same as a few years ago).	The current agricultural season is good and this encourages activity among the 'middle' and 'better-off' wealth groups, leading to more opportunities. There are ample supplies of food (for Ganyu payment) due to informal importations Food-For-Work projects have also increased local supplies and have made food payment rates buoyant.
Seasonal Timing	The season has been on time, except in Karonga and Chitipa, where the harvest will be one month later than expected	An army worm infestation has forced a replant, delaying farming activities

### Interventions So Far and Their Impact

In May 2004, the MVAC deliberately left out the impact of outside interventions from its analysis; this was because the interventions themselves were being planned and it was hoped that the analysis would *influence* those interventions. By the end of the year, however, many of these interventions had begun taking place, directly and indirectly affecting households' access to food.

The decision was therefore made to include all interventions that have been carried out but not those interventions that are still being planned, for the same reason that it is hoped that this analysis will influence those plans.

**Food Aid:** WFP have largely based the distribution plans for food aid this year on the findings in the MVAC May report, although they assumed a 'contingency' somewhere in between **scenario 1** and **scenario 2**<sup>13</sup>.

Hence, a large proportion of WFP 'emergency' food aid has been programmed into the same areas identified and analysed by the MVAC, contributing significantly to households' sources of food. Approximate per capita rations were computed into food energy contributions and these were entered into the analysis. Contributions ranged from 5-25% of households' minimum *annual* food needs. Although the contributions may look small, it must be borne in mind that these food deliveries were made over a short period and larger per capita deliveries were planned towards the end of the year.

<sup>13</sup> See the MVAC Report of May 2004 for an explanation of the scenarios. See also, WFP....

### Box 1 – The 2004-2005 Scenario and the Remaining Assumptions

The deficits and resulting food gaps reported in this document are based on *scenarios* for the remainder of the agricultural year, which are subject to many assumptions.

1. It is still assumed that households will maximise their opportunities to obtain income or food in order to meet their minimum requirements, i.e. they will not reduce intake instead or engage in risky practices to obtain food or cash.
2. As things stand, opportunities for labour (ganyu) in neighbouring countries have been normal and there has not been excessive emigration. It is assumed that this will continue as before.
3. The analysis here has considered that the exchange rate will continue to remain stable. If a sudden devaluation occurs during this food-purchasing period (December to March), households will be severely disenfranchised.
4. It is assumed that prices for most purchased commodities will continue to rise at the current prevailing inflation rate. This is 19% more than the price in the baseline marketing year, i.e. the agricultural marketing year April 2002 to March 2003
5. So far there has not actually been too much instability in the national supply of cereals, in a large measure due to informal imports. However, a break in these could seriously affect staple prices—so far the prognosis is that this is unlikely to occur before the harvest. Hence, in most areas, the staple price is expected to be in line with inflation (i.e. around MK 18-25 per kg) and the worst-case scenario (called “Scenario 2” in May) has not occurred. Some areas (notably, those around Lilongwe actually have purchase prices that are lower than the inflation-adjusted price, when compared with previous years. It is therefore assumed that this price stability will continue.
6. This analysis has included interventions, such as public works programmes, wide-scale income transfer projects and food aid, where actual significant amounts have been already been distributed. It has not included planned amounts, as it seeks to inform these interventions.
7. Population figures and the missing food entitlements are based on population extrapolations devised by the National Statistics Office, following the 1998 National Census. The MoAIFS’ EPA population tables are also used. These may or may not reflect the actual numbers of people on the ground in 2004-2005.

**Cash Transfers:** The existing cash-transfer programmes<sup>14</sup> have been designed as multi-year programmes and hence they are not tailored to respond to short-term acute food insecurity. Hence, the contribution of these programmes to the identified households’ income sources is not significant enough this year to affect their acute vulnerability. If it is intended to have cash playing a more prominent role in addressing hunger and food insecurity, these programmes will need to have the addition of a more scaleable, fast action component with a national mandate. In such a component, the emphasis will need to be placed on the resource-transfer side of the operation, rather than the need for and the design of the (road or whatever).

#### Other factors and Changes Affecting Food Security

**Floods:** During December and January 2005, flooding occurred in the following districts: Zomba, Phalombe, Nsanje, Chikwawa, Mangochi and Ntcheu. The flooding

affected a total of 1,879.9 Ha of cropland and 37,3915 households. The situation is currently manageable; however, the peak flooding period in most areas is February and therefore, there is strong possibility that there could be more extensive flooding over the next six weeks.

Linking to the situation analysis, some of the areas that experienced flooding have already been identified as severely vulnerable including the flooded areas in Nsanje (TA Mbenje), Chikwawa (TAs Ngowe, Maseya, Lundu and STA Ndakwera) and Phalombe (STA Jenala). In these areas, most of the food security problems households are currently facing are a result of last years poor growing season not the current flooding, although the flooding as obviously exacerbated the situation. In many areas, households are planning to replant during the winter cropping season, if this season is favourable, it will be reflected in the 2005/06 consumption season. If the winter cropping season experiences difficulties, the effects of the floods will also be reflected in next years harvest.

**Table III - Flood Affected Areas: December 2004**

District	Cropland damaged (hectars)	Houses damaged	Households displaced	Households affected	Deaths
Zomba TAs Chikowi, Chinamwali, Matawale, Malemia, Mwambo (Mpokwa EPA), Kuntumanji (Nsondole EPA), Villages around Khanda irrigation scheme, Mwambo, Namasalima (Malosa/Nsondole EPA)	358.3	276	6	1,417	4

<sup>14</sup> The two most significant cash-transfer programmes are the EU/Public Works Programme and the Malawi Social Action Fund (MASAF). Both presently use cash-for-work as their primary mechanism for transferring cash to beneficiaries.

<sup>15</sup> Data from Ntcheu not included.

District	Cropland damaged (hectors)	Houses damaged	Households displaced	Households affected	Deaths
Phalombe STA Jenala	881.2	6	-	441	-
Nsanje TA Mbenje	79	107	25	168	-
Chikwawa TAs Ngowe, Maseya, Lundu, STA Ndakwera	495.5	23	25	1,260	-
Mangochi EPA Luagwena	65.9	Approx 64		453	
Ntcheu					
<b>Total</b>	<b>1,879.9</b>	<b>476</b>	<b>56</b>	<b>3,739</b>	<b>4</b>

**Army Worm Attacks:** Close to 2000 ha of agricultural land has been affected by an armyworm attack in Chitipa, Karonga, Rumphi and Dedza. The report from the Ministry of Agriculture's Department of Crop Production indicates that the pests destroyed maize and plants in all the districts. The report further says some rice schemes were also destroyed in Karonga district.

The situation is reported to be under control and farmers have replanted damaged crop plants. However, there are concerns that the replanted crop may give lower yield especially in the event that rains do not continue. The first planting was done in end November 2004 and this replanting comes one month later.

Linking this situation to the analysis, most of the impact of the outbreak on household food security will only be felt after the next harvest, or during the of 2005/06 consumption year, except for green maize consumption during the hunger months (February to March) and the delay in the harvest. These last two effects have been included in the analysis presented in this report.

## Outcome

*Food deficits* in this report refer to the *missing* percentages of the annual energy needs for an average household. The energy needs are based on an average minimum requirement of 2100 kcal per person per day. Therefore, if a household is expected to face a food deficit of 33%, the household is missing one-third of its total minimum annual food needs – a very serious situation.

As in May 2004, the 'better-off' households in all areas of the country still do not appear to be facing a deficit in the coming agricultural year (April 2004 to March 2005). Only one area now shows deficits for the 'middle' households – in the Lake Chilwa - Phalombe Plain livelihood zone.

### Box 3 – A Note about Numbers

The figures below exclude households in unaffected areas that nevertheless may have some characteristic that would make them vulnerable, for example, a household whose productive members suffer from a chronic, disabling disease such as HIV/AIDS.

All figures reported here are only approximations and may be subject to revision at any time at the discretion of the Malawi VAC.

**Table IV – Food Energy Deficits by Districts, EPAs and Livelihood Zones for Each Scenario**

Affected Area			Deficits (Percentage of 2100 kcal)			
District	EPAs	Livelihood Zone	Whole Year		January-March 2005	
			'Poor'	'Middle'	'Poor'	'Middle'
Balaka	Phalula, Bazale, Utale	Middle Shire Valley	15-30%		>60%	
Blantyre	Lirangwe, Chipande	Middle Shire Valley	15-30%		>60%	
	Ntonda, Kunthembe	Shire highlands	15-25%		50-60%	
Chikwawa	Kalambo, Livunzu	Lower Shire Valley	5-10%		25-40%	
	Mbewe, Mitole, Mikalango, Dolo	Lower Shire Valley	5-20%		40-50%	
Chiradzulu	Thumbwe	Lake Chilwa & Phalombe Plain	35-50%	10-20%	>60%	>60%
	Thumbwe, Mombezi	Shire highlands	15-25%		50-60%	
Chitipa	Kavukuku	Chitipa Maize and Millet			1-5%	
Dowa	Bowe, Mponela	Kasungu Lilongwe Plain			10-25%	
Karonga	Lupembe	Central Karonga	10-25%		40-50%	
Kasungu	Kaluluma, Chasama	Kasungu Lilongwe Plain			10-25%	
Machinga	Chikweo, Nampeya	Lake Chilwa & Phalombe Plain	25-35%		>60%	5-10%
Mangochi	Maiwa	Shire highlands	15-25%		50-60%	
	Nasenga, Mbwadzulu	Southern Lakeshore			10-15%	
Mchinji	Mkanda	Kasungu Lilongwe Plain			10-25%	
Mulanje	Msikawanjala, Mulanje Boma	Thyolo Mulanje Tea Estates			20-30%	

Affected Area			Deficits (Percentage of 2100 kcal)			
District	EPAs	Livelihood Zone	Whole Year		January-March 2005	
			'Poor'	'Middle'	'Poor'	'Middle'
Mwanza	Lisungwi, Mwanza	Middle Shire Valley	15-25%		>60%	
Nsanje	Nyachilenda, Mpatsa, Mogoti	Lower Shire Valley	5-20%		40-50%	
	Makhanga, Zunde	Lower Shire Valley	5-10%		25-40%	
Phalombe	Kosongo, Mpinda, Tamani	Lake Chilwa & Phalombe Plain	35-50%	10-20%	>60%	>60%
Salima	Thembwe, Chipoka	Southern Lakeshore			10-15%	
Thyolo	Khonjeni, Thekerani, Thyolo Boma, Masambanjati	Thyolo Mulanje Tea Estates			20-30%	
	Matapwata	Shire highlands	15-25%		50-60%	
Zomba	Chingale	Middle Shire	15-30%		>60%	
	Chingale, Ntubwi	Shire highlands	15-25%		50-60%	

**Table IV** above shows the household deficits for both scenarios. What is clear is that for those households with large deficits (>15%), staple price increases that are substantially above the inflation rate do not drive up these deficits by much. This is explained by the fact that households with large deficits have low incomes; these households are unable to purchase grain at any price and so are not directly affected by staple purchase-price changes as others are. Price rises (especially sudden ones) will have an *indirect* effect of these households, however, as their main sources of income and food (ganyu, self-employment, begging, etc.) are dependent on other, richer households in the community. A sudden price rise could trigger a 'hoarding' response by these richer households, as they begin to fear that they, too, might not be able to afford their food needs. The net impact on the poor can be catastrophic. Households that are just able to meet their needs (borderline cases) and those that are facing low deficits will experience a larger increase food shortage when prices increase. These households have greater incomes than those with the high deficits; however, income is only useful when prices are stable.

When studying the baselines, it is clear that household incomes are very low for a great many Malawians. Baseline income figures range from around MK 8,000 to MK 25,000 (US\$ 75 to US\$ 234, € 63 to € 197 or £41 to £127) per household per annum for the poorest third of most communities. At current prices, if *all the income* of a household from the lower end of the above range is put into staple purchase only, the household will get only 45% of its needs. Clearly, many households do not have the means to purchase their way out of any production failure –even for a short period. In addition, given that households have expenditure other than staple food, it becomes necessary for them to seek cash whenever they can. This means that they are forced to sell produce at harvest-time for a low price and then, if they get any more money, they will have to purchase it back again later on in the year at a high price. It is these low incomes, coupled with small or non-existent asset holdings that make the poor so vulnerable to even mild production or economic shocks.

It is possible to calculate the amount of money a household from a particular wealth group will need to overcome their deficits. This can be called the 'income requirement'. In general, the larger the food deficit, the larger the income requirement will be. **Table VII** on page 17 in **Appendix III** shows the income deficits in each of the affected parts of a livelihood zone.

The deficits can be combined with population figures to obtain a 'missing food entitlement'<sup>16</sup> for particular administrative areas. This has been done and the summary for the whole country is presented in **Table V**, while detailed breakdowns are available in **Appendix IV** on page 18 in **Table VIII**.

**Table V - Table of Main Food Security Outcomes: Missing Food Entitlements and Cash Requirements**

		Scenario	Remarks
<b>Total Population affected</b>	<b>TOTAL</b>	<b>1,301,800</b>	
<b>Missing Food Entitlements (MT)</b>	April-December	7,830	Scenario 1: Only the 'poor' in Lake Chilwa – Phalombe Plain Scenario 2: Addition of some 'poor' from Middle Shire
	January-March	29,720	'Middle' and 'poor' wealth groups
	<b>TOTAL</b>	<b>37,550</b>	
<b>Cash needed to Overcome Missing Food Entitlements</b>	Malawi Kwacha (K)	1,153,000,000	
	US Dollar (\$)	10,780,000	Assumes an exchange rate of K107 to \$1

<sup>16</sup> More precisely, this should be referred to as the 'missing food energy entitlement', as the calculations have been based on energy calculations. While it is theoretically possible to factor in the other important components of diet (such as protein, fats, micronutrients) into the calculations, the added complexities (and the time and resources required for them) are not easily justified for this exercise, where *acute* (short-term and more severe) food shortages being experienced by households are the object of study.

	Euro (€)	9,080,000	Assumes an exchange rate of K127 to \$1
	Pound Sterling (£)	5,820,000	Assumes an exchange rate of K198 to \$1

Missing food entitlements are not a 'food-aid need'; rather, they are the amount of maize required to replace the energy deficits in the identified households. Food-aid needs will depend on many other factors as well, including (but not limited to) the amount of cash (income) the household receives from other interventions, the 'off-take' from the planned food rations, the actual food intake by the beneficiaries (including mis-targeted food) and the food requirements for households with other specific chronic vulnerability. Population figures and the percentages affected in each zone are listed in each Livelihood Zone Profile in pages 14 to 30 of the May Report.

As with the missing food entitlements, the total cash required to replace the food gaps can be calculated. This is shown for each livelihood zone in **Table V** above and in **Table VIII** on page 18 of **Appendix IV**.

For those comparing this outcome with that forecast in May 2004, they will notice that the missing food entitlement has decreased from the figure for **scenario 1** by 33% or 18,480 MT since May 2004. The decrease has come partly as a result of:

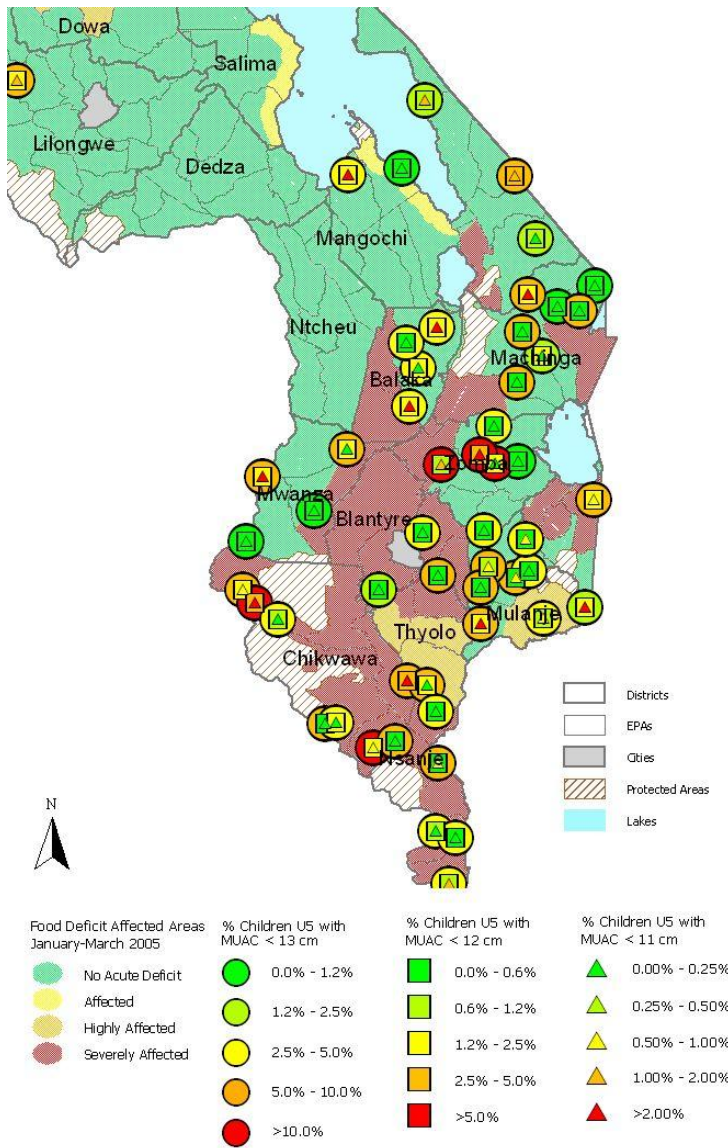
- A stable economic situation that has allowed the import of food where needed; this has kept food prices and supplies stable.
- Better prospects for ganyu for the poor than anticipated in May, this is as a result of a combination of factors: including the good current season, no scares on the availability of food and competition from food-for-work programmes.
- The humanitarian response that has taken place after the shortfalls that were highlighted in May 2004.

In short, the shrink in the missing food entitlements came about *because* policies and programmes were conducive to reducing it.

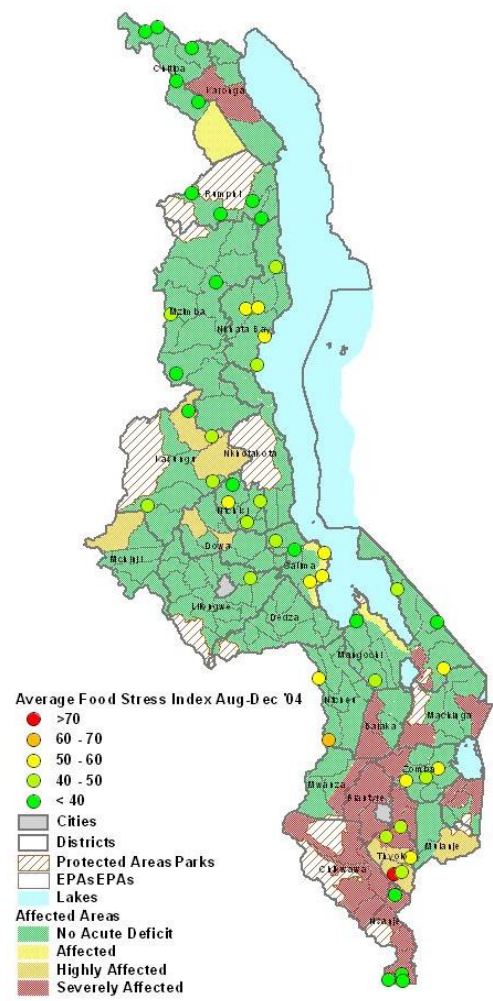
Nevertheless, without further interventions over the coming few months, household deficits are likely to remain, highlighting the need to continue with planned interventions.

## Comparisons with Other Outcome Data

### Nutritional Surveillance



### Food Stress Index



## Conclusion and Implications

Malawi has managed to avert a crisis in food security this year, largely because of the influx of food that has come into the country, most of it from Mozambique. The presence of targeted interventions in the areas of greatest need have also contributed significantly to an improved outlook, when compared with previous forecasts. However, especially during the current ‘hunger period’, many households will still be facing acute shortages of food.

### Short Term Implications

There is a strong need to maintain the current economic stability at least until harvest time. This is especially true of exchange rates, as food still needs to be imported. The last thing the Country needs is a maize-price shock and the consequent scare that will cut the poor off from food derived through ganyu, social ties and other redistributive mechanisms. Hence, there is a need to ensure that there remain no impediments to informal trade (at least until harvest).

Even with the informal cross-border trade, there are still a large number of households in the affected parts of the country who cannot get their hands on enough food. The vulnerability of these households, as identified in this report, is underlined by some of the nutrition data, where in most cases relatively high numbers of “at risk” children have been reported in the affected areas, while overall malnutrition figures still remain quite good. These vulnerable or affected households will need to continue to be supported, up until the next harvest. Therefore, the planned deliveries of food aid and its current seasonal scaling up must continue (until the harvest).

As the informal cross-border trade taking place around the country has played a major role in stabilising food supplies, prices and ganyu, the efforts in understanding this trade have assisted considerably in addressing food insecurity. It is

important that this valuable work continue and be supported by all partners engaged in food security and vulnerability analysis.

### **Longer Term Implications**

Households in Malawi have very small asset bases and very, very low incomes. Malawi has a history of well-developed and successful cash-transfer oriented programmes; however, these programmes need to be given the capacity to scale up or down in different areas (spatial and longitudinal flexibility) and to be able to respond to acute vulnerability when the time calls for it. Being able to swing a large-scale cash-based programme into an area where people are facing acute shortages in their entitlements will not only provide people with a more fungible resource that can be converted into a wider range of foodstuffs for consumption, it will also have the effect of stimulating demand for the product that the poor mostly produce: food.

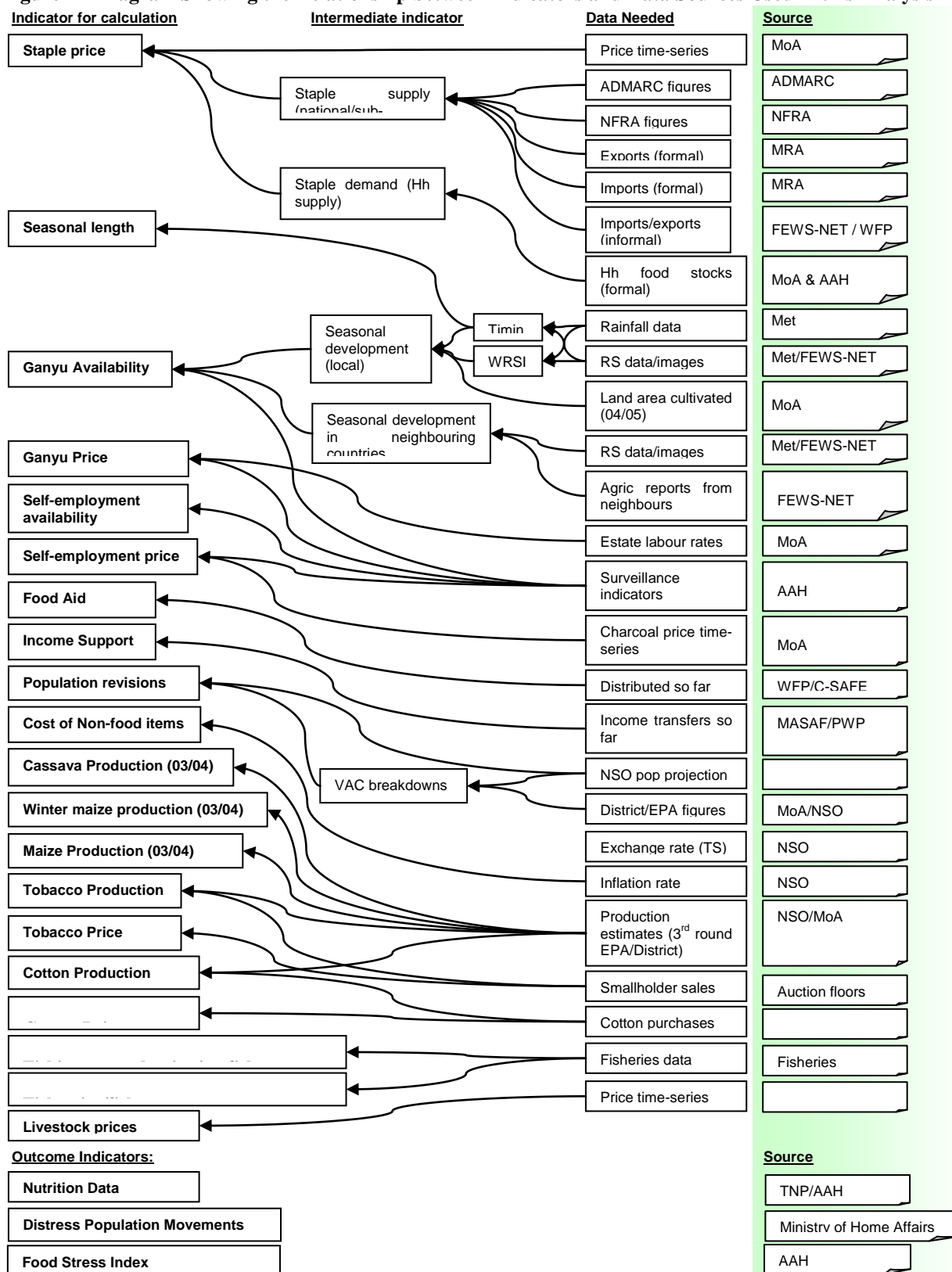
Finally, there is a need to better understand the causes of chronic vulnerability, food insecurity and malnutrition. The small but yearly deficiencies of food that so many households face each year need to be investigated more thoroughly. The Malawi VAC plans to conduct some studies and support for these activities would be most welcome.

# Food Security Monitoring Report – January 2005

## Appendices

### Appendix I: Indicators and Data Sources

Figure 2 – Diagram Showing the Relationship between Indicators and Data Sources Used in this Analysis



## Appendix II: Detailed Changes to Problem Specifications

Table VI - Detailed Changes in Problem Specifications

Indicator Used	Zones with changed problem specifications since May 2004	Value in May 2004	Value Now	Justification
Staple purchase Price	Chitipa Maize and Millet (Kavukuku EPA)	Not analysed	119%	The adjustments are based on trends from time-series data. Prices today (in Kwacha terms) are compared with those of early 2003 (i.e., two years ago).
	Kasungu-Lilongwe Plain (all EPAs)	119%	100%	
	Lake Chilwa-Phalombe Plain (Nampeya & Chikweo EPAs)	119%	110%	
Staple selling price	Kasungu-Lilongwe Plain (all EPAs)	119%	80%	
	Lake Chilwa-Phalombe Plain (Nampeya and Chikweo EPAs)	119%	100%	
Maize production	Chitipa Maize and Millet (Kavukuku EPA)	Not analysed	43%	
	Central Karonga	50%	27%	
	Kasungu-Lilongwe Plain (Bowe, Mponela, Mkanda, Kaluluma, Chasama)	61%	64%	
	Middle Shire (Lisungwi)	34%	57%	
	Middle Shire (Phalula, Bazale, Utale, Chingale, Lirangwe Chipande)	57%	39%	
	Lake Chilwa-Phalombe Plain (Nampeya and Chikweo EPAs)	59%	64%	
	Lower Shire (Kalambo, Livunzu, Mkanda and Zunde EPAs)	57%	50%	
	Lower Shire (Mitole, Mbewe, Mikalango, Dolo, Mogoti, Mpatasa and Nyachilenda EPAs)	19%	19%	Mitole, Mbewe, Mikalango and Dolo EPAs are now included in this group
Winter maize	Lower Shire (Kalambo, Livunzu, Makhanga and Zunde EPAs)	50%	100%	Lower Shire had a better-than-expected winter season this year
	Lower Shire (Mitole, Mbewe, Mikalango, Dolo, Mogoti, Mpatasa and Nyachilenda EPAs)	50%	80%	
Rice production	Southern Lakeshore (Tembwe, Chipoka, Mbwadzulu, Nasenga EPAs)	30%	43%	Based on Round 3 Crop Estimates data
Fruits and vegetables production	Middle Shire (all EPAs)	30%	50%	
Tobacco price	Chitipa Maize and Millet (Kavukuku EPA)	Not analysed	110%	Based on average auction prices
Tobacco production	Kasungu-Lilongwe Plain (all EPAs)	80%	100%	Higher-than-expected production figures were reported at the auctions
Cotton production	Middle Shire (all EPAs)	60-175%	100%	Production was at least as good as a few years ago.
Ganyu-for-food availability <sup>17</sup>	Chitipa Maize and Millet (Kavukuku EPA)	Not analysed	80%	Good rainfall in the 2004-2005 season has encouraged the better-off to farm more intensively, increasing ganyu availability
	Central Karonga	40%	60%	
	Southern Lakeshore (Tembwe, Chipoka, Mbwadzulu, Nasenga EPAs)	30%	60%	
Ganyu-for-cash <sup>18</sup> availability	Chitipa Maize and Millet (Kavukuku EPA)	Not analysed	100%	
	Central Karonga	50%	75%	

<sup>17</sup> This does not include Food-For-Work interventions

<sup>18</sup> This does not include Public Works or Cash-For-Work interventions

	Southern Lakeshore (Tembwe, Chipoka, Mbwadzulu, Nasenga EPAs)	50%	75%	
Ganyu pay rates	Chitipa Maize and Millet	Not analysed	100%	Local ganyu rates remain unchanged since a few years ago.
Fishing ganyu availability	Southern Lakeshore (Tembwe, Chipoka, Mbwadzulu, Nasenga EPAs)	50%	67%	The amount of fish being caught has not decreased considerably in the last few years (fisheries data)
Season Length	Chitipa Maize and Millet (Kavukuku EPA)	Not analysed	+1 month	Delay in planting caused by army worm infestation
	Central Karonga	No change	+1 month	

### Appendix III: Household Cash Required to Overcome Deficits

Table VII - Cash Requirements to Alleviate Deficits

Affected Parts of Livelihood Zone	Household Yearly Incomes (MK) Required to Overcome Deficit	
	'Poor'	'Middle'
Thyolo Mulanje Tea Estates	6,411	
Kasungu Lilongwe Plain – Dowa, Kasungu, Ntchisi & Mchinji	2,359	
Lower Shire Valley – Nyachilenda, Mpatsa & Mogoti EPAs	2,957	
Lower Shire Valley – Chikwawa district and Makhanga & Zunde EPAs	2,040	
Middle Shire Valley – Lisungwi & Mwanza EPAs	5,215	
Middle Shire Valley – Blantyre, Balaka & Zomba districts	5,941	
Lake Chilwa & Phalombe Plain – Phalombe district	10,943	4,219
Lake Chilwa & Phalombe Plain – Machinga district (R2)	7,030	
Shire highlands	4,837	
Southern Lakeshore	2,087	
Central Karonga	2,277	
Chitipa Maize and Millet	562	

## Appendix IV: Missing Food Entitlements and Cash Equivalents to the Missing Food Entitlements

Table VIII – Matrix of Vulnerable Populations, Missing Food Entitlements and Cash Requirements by District and Livelihood Zone

District	District Population 2004	Data Type	Livelihood zone											District Total			
			Lake Chilwa & Phalombe - Kosongo, Mpinda, Tamani & Thumbwe	Thyolo Mulanje Tea Estates - Msikawanjala, Mulanje Boma, Khonjeni, Thekerani	Lower Shire - Nyachilenda, Mpatsa, Mogoti, Dolo, Mikalango, Mbewe	Lower Shire - Kalambo, Livunzu, Makhanga, Zunde	Middle Shire - Lisungwi	Middle Shire - Lirangwe, Phalula, Utale, Bazale, Chingale, Chipande	Lake Chilwa & Phalombe - Chikweo, Nampeya	Shire highlands - Thumbwe, Mom, Ntonda, Kun, Maiwa, Chin, Ntubwi, Mata	Southern Lakeshore - Chipoka, Tembwe, Mbwadzulu & Nasenga	Central Karonga - Lupembe EPA	Chitipa Maize & Millet - Kavukuku EPAs		Kasungu Lilongwe Plain - Bowe, Mponela, Mkanda, Katuluma, Chasama		
Balaka	295,623	Affected Population															
		Missing Food Entitlement (MT)															
		Equiv Cash Req'm't: (K million)															
Blantyre	349,427	Affected Population															
		Missing Food Entitlement (MT)															
		Equiv Cash Req'm't: (K million)															
Chikwawa	425,080	Affected Population				161,530											
		Missing Food Entitlement (MT)				2,871											
		Equiv Cash Req'm't: (K million)				65.9											
Chiradzulu	273,893	Affected Population	83,404														
		Missing Food Entitlement (MT)	4,853														
		Equiv Cash Req'm't: (K million)	112.4														
Chitipa	152,691	Affected Population															
		Missing Food Entitlement (MT)															
		Equiv Cash Req'm't: (K million)															
Dedza	582,289	Affected Population															
		Missing Food Entitlement (MT)															
		Equiv Cash Req'm't: (K million)															
Dowa	469,924	Affected Population															
		Missing Food Entitlement (MT)															
		Equiv Cash Req'm't: (K million)															

District	District Population 2004	Data Type	Livelihood zone											District Total
			Lake Chilwa & Phalombe - Kosongo, Mpinda, Tamani & Thumbwe	Thyolo Mulanje Tea Estates - Msikawanjala, Mulanje Boma, Khonjeni, Thekerani	Lower Shire - Nyachilenda, Mpatsa, Mogoti, Dolo, Mikalango, Mbewe	Lower Shire - Kalambo, Livunzu, Makhanga, Zunde	Middle Shire - Lisungwi	Middle Shire - Lirangwe, Phalula, Utale, Bazale, Chingale, Chipande	Lake Chilwa & Phalombe - Chikweo, Nampeya	Shire highlands - Thumbwe, Mom, Ntonda, Kun, Maiwa, Chin, Ntubwi, Mata	Southern Lakeshore - Chipoka, Tembwe, Mbwadzulu & Nasenga	Central Karonga - Lupembe EPA	Chitipa Maize & Millet - Kavukuku EPAs	
Karonga	230,026	Affected Population Missing Food Entitlement (MT) Equiv Cash Reqm't: (K million)										1,800 67 0.8		1,800 67 0.8
Kasungu	589,019	Affected Population Missing Food Entitlement: (MT) Equiv Cash Reqm't: (K million)											64,327 607 30.3	64,327 607 30.3
Machinga	417,594	Affected Population Missing Food Entitlement (MT) Equiv Cash Reqm't: (K million)								98,828 2,703 52.1				98,828 2,703 52.1
Mangochi	711,179	Affected Population Missing Food Entitlement (MT) Equiv Cash Reqm't: (K million)								14,154 597 13.7	40,203 268 16.8			54,357 865 30.5
Mchinji	395,171	Affected Population Missing Food Entitlement (MT) Equiv Cash Reqm't: (K million)											22,378 211 10.6	22,378 211 10.6
Mulanje	506,598	Affected Population Missing Food Entitlement (MT) Equiv Cash Reqm't: (K million)		59,742 863 76.6										59,742 863 76.6
Mwanza	162,739	Affected Population Missing Food Entitlement (MT) Equiv Cash Reqm't: (K million)					21,524 956 22.4							21,524 956 22.4
Nsanje	223,278	Affected Population Missing Food Entitlement (MT) Equiv Cash Reqm't: (K million)			48,158 1,230 28.5	36,688 652 15.0								84,846 1,883 43.4
Phalombe	280,043	Affected Population	56,154											56,154

District	District Population 2004	Data Type	Livelihood zone											District Total	
			Lake Chilwa & Phalombe - Kosongo, Mpinda, Tamani & Thumbwe	Thyolo Mulanje Tea Estates - Msikwanjala, Mulanje Boma, Khonjeni, Thekerani	Lower Shire - Nyachilenda, Mpatsa, Mogoti, Dolo, Mikalango, Mbewe	Lower Shire - Kalambo, Livunzu, Makhanga, Zunde	Middle Shire - Lisungwi	Middle Shire - Lirangwe, Phalula, Utale, Bazale, Chingale, Chipande	Lake Chilwa & Phalombe - Chikweo, Nampeya	Shire highlands - Thumbwe, Mom, Ntonda, Kun, Maiwa, Chin, Ntubwi, Mata	Southern Lakeshore - Chipoka, Tembwe, Mbwadzulu & Nasenga	Central Karonga - Lupembe EPA	Chitipa Maize & Millet - Kavukuku EPAs		Kasungu Lilongwe Plain - Bowe, Mponela, Mkanda, Kaluluma, Chasama
Phalombe		Missing Food Entitlement (MT) Equiv Cash Reqm't: (K million)	3,267 75.7												3,267 75.7
Salima	308,882	Affected Population Missing Food Entitlement: (MT) Equiv Cash Reqm't: (K million)									33,220 221 13.9				33,220 221 13.9
Thyolo	539,610	Affected Population Missing Food Entitlement (MT) Equiv Cash Reqm't: (K million)		208,185 3,006 266.9								6,319 267 6.1			214,504 3,273 273.0
Zomba	558,132	Affected Population Missing Food Entitlement (MT) Equiv Cash Reqm't: (K million)						18,757 969 22.3			17,508 739 16.9				36,265 1,708 39.2
Total Affected Population			139,558	267,927	48,158	198,218	21,524	167,179	98,828	154,240	73,423	1,800	9,864	121,111	1,301,830
Total Missing Food Entitlement (MT)			8,120	3,869	1,230	3,523	956	8,636	2,703	6,511	489	67	16	1,144	37,265
Total Equiv Cash Requirement: (K million)			188.1	343.5	28.5	80.9	22.4	198.6	52.1	149.2	30.6	0.8	1.1	57.1	1,153.2