



MALAWI  
Vulnerability  
Assessment Committee

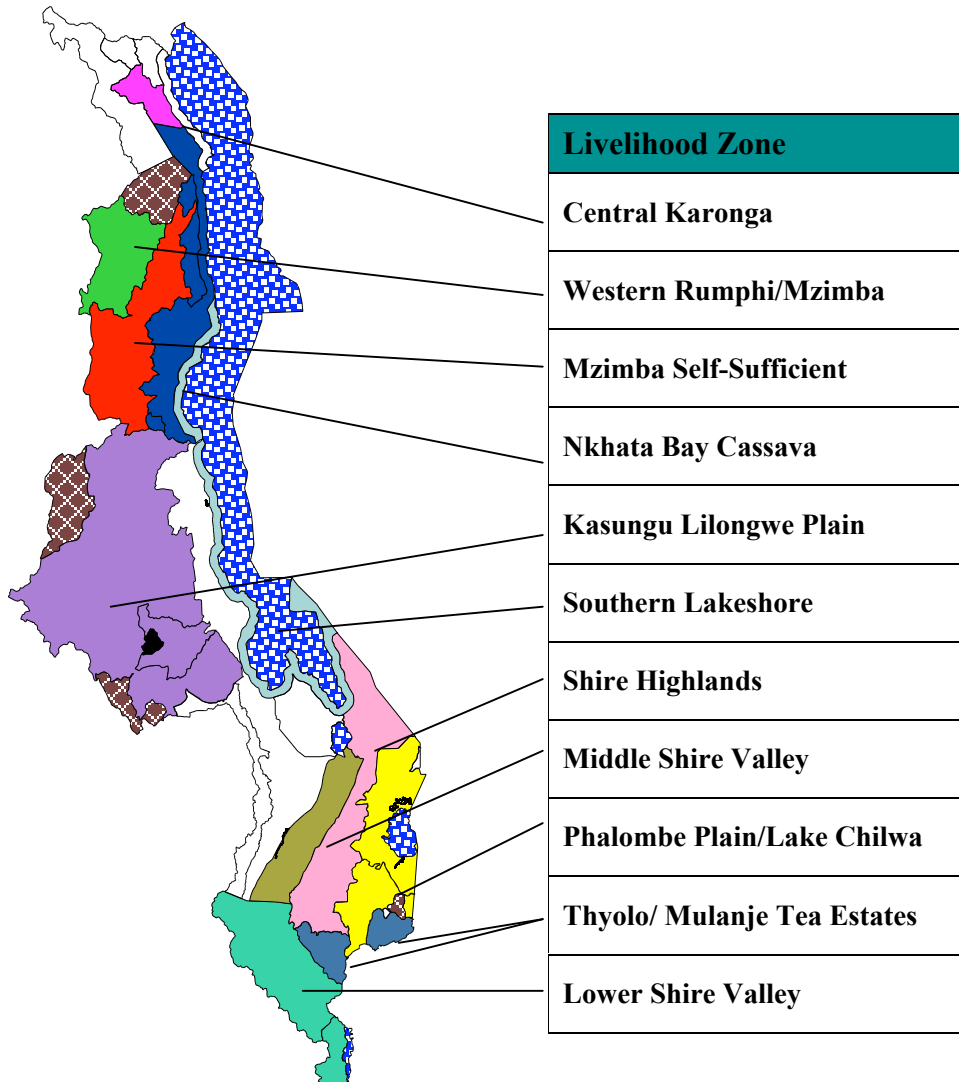
**Malawi National Vulnerability Assessment Committee  
In collaboration with the  
SADC FANR Vulnerability Assessment Committee**



SADC FANR  
Vulnerability  
Assessment Committee

# Malawi Baseline Livelihood Profiles

May/June 2003



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## **PREFACE**

The Malawi Vulnerability Assessment Committee (VAC) is a consortium committee of government, NGO and UN agencies and is chaired by the Ministry of Economic Planning and Development (formerly National Economic Council). MVAC members contributing to the livelihood rezoning and baseline assessments included, the Ministry of Economic Planning and Development, the Ministry of Agriculture, Irrigation and Food Security, Department of Local Government, the National Statistics Office, the Ministry of Health and Population, Save the Children (UK), World Vision International, FEWS NET, and WFP.

This assessment was regionally supported by the Southern Africa Development Community (SADC) Food, Agriculture, and Natural Resources (FANR) Vulnerability Assessment Committee (VAC), in collaboration with international partners.

## Acronyms

AAH	Action Against Hunger
ADMARC	Agricultural Development and Marketing Corporation
CFSAM	Crop and Food Supply Assessment Mission (FAO/WFP)
HEA	Household Economy Approach
EPA	Extended Planning Area
FAO	Food and Agricultural Organization of UN
GAM	Global Acute Malnutrition
GCM	Global Chronic Malnutrition
FEG	Food Economy Group
GFD	General Food Distribution
FEWS NET	Famine Early Warning System Network
ME	Maize Equivalent
MEP&D	Ministry Economic and Planning Department Ministry
MK	Malawi Kwacha (local currency)
MOAIFS	Ministry of Agriculture, Irrigation and Food Security
MOHP	Ministry of Health and Population
MVAC	Malawi Vulnerability Assessment Committee
MT	Metric Tonnes
NFRA	National Food Reserve Agency
NGO	Non-governmental Organization
NSO	National Statistics Office
RVAC	Regional Vulnerability Assessment Committee
SAM	Severe Acute Malnutrition
SCM	Severe Chronic Malnutrition
SCFUK	Save the Children (UK)
WFP	World Food Programme
WVI	World Vision International

## Table of Contents

<a href="#">1</a>	<a href="#">Introduction</a>	5
<a href="#">2</a>	<a href="#">Key Concepts and Methodology</a>	6
<a href="#">2.1</a>	<a href="#">The Household Economy Approach (HEA)</a>	6
<a href="#">2.2</a>	<a href="#">Four Steps in HEA and Key Concepts</a>	6
<a href="#">3</a>	<a href="#">Malawi Baseline Livelihood Assessment</a>	9
<a href="#">3.1</a>	<a href="#">Sources of Information and Method of Collection</a>	9
<a href="#">3.2</a>	<a href="#">Defining the Baseline Year</a>	10
<a href="#">3.3</a>	<a href="#">Scope of the Baseline Survey</a>	10
<a href="#">3.4</a>	<a href="#">Implementation of Baseline Survey</a>	12
<a href="#">4</a>	<a href="#">Individual Livelihood Zone Profiles</a>	12
	<a href="#">Central Karonga</a>	13
	<a href="#">Western Rumphi and Mzimba</a>	17
	<a href="#">Mzimba Self-Sufficient Zone</a>	21
	<a href="#">Nkhata Bay Cassava</a>	25
	<a href="#">Kasungu Lilongwe Plain</a>	29
	<a href="#">Southern Lakeshore</a>	33
	<a href="#">Middle Shire</a>	37
	<a href="#">Phalombe Plain and Lake Chilwa Basin</a>	41
	<a href="#">Thyolo-Mulanje Tea Estates</a>	<b>Error! Bookmark not defined.</b>
	<a href="#">Lower Shire</a>	49
	Densely Populated Shire Highlands	54
	<a href="#">Appendix I: HEA Analytical Framework</a>	57
	<a href="#">Appendix II: Livelihood Zone Population by EPA</a>	58
	<a href="#">Appendix III: Baseline Survey Sample</a>	62
	<a href="#">References</a>	63

## 1 INTRODUCTION

The food crisis of the past two years highlights the fragile livelihoods and extreme vulnerability of the Malawi's rural population to food insecurity and crisis, and indications are that this vulnerability is increasing along side deepening poverty<sup>1</sup>. Despite the focus on poverty and poverty reduction in recent years, surprisingly little is currently known about the economic lives and livelihoods of the poor. The emergence of livelihood analysis as a major theme in development has begun to readdress this knowledge gap and is one, which the Malawi Vulnerability Assessment Committee (MVAC) has adopted to analyse vulnerability. The MVAC's purpose is to undertake assessments and analysis with the objective to improve the understanding of vulnerability, as well as to inform programming and policy to reduce vulnerability. One of the methods the MVAC has adopted to achieve this is a Livelihoods Based Vulnerability Approach (LBVA) known as the Household Economy Approach (HEA)<sup>2</sup>. This Livelihood Based Vulnerability Approach generates information and analysis that provides a foundation for better understanding the dynamics of change and vulnerability within households.

Between May and July 2003, the MVAC conducted a livelihood rezoning exercise and a Household Economy Approach (HEA) baseline survey in 11 out of 17 livelihood zones in Malawi. These activities form the first stage in the establishment of a livelihood information and monitoring system within the MVAC that is designed to generate a deeper understanding of rural livelihoods, food access issues, and the ability of different wealth groups to cope with shocks and vulnerability. This report summarizes or 'profiles' by livelihood zone and wealth group some of the key descriptive information captured in the MVAC HEA livelihood baseline and provides a basic understanding of rural livelihood patterns in Malawi<sup>3</sup>. This baseline information will be employed in an analytical modelling tool by the MVAC to monitor household food and livelihood security, as well as to generate analysis for understanding the impact of different programming and policy on vulnerability, and food and livelihood security. The LBVA approach adopted by MVAC is aimed at providing relevant information and analysis on food access and livelihoods to the different Government Ministries, as well as international organizations and civil society to inform early warning, rural development strategies, poverty reduction and safety nets programming, and food security policy formulation

The report is organized into three main sections: a brief discussion of key concepts and methodology, a section on the field data collection and analysis, followed by a series of 'profiles' for each of the 11 livelihood zones. Each of the 11 livelihood zone profiles contain a zone description, seasonal calendar, wealth breakdown, sources of food and cash by wealth group, a discussion of the main chronic and periodic hazards within the zone, household coping and response strategies to shocks, crisis warning indicators for the zone, and main conclusions and implications of for programming. This report is not a vulnerability assessment, nor is it a comparative analysis across zones, but provides a general description of the baseline livelihood information that the MVAC has collected. In May/June 2004 the MVAC plans to conduct further fieldwork to collect baseline information for the remaining 6 livelihood zones that were not covered in the May/July 2003 assessment. Once this is completed the MVAC will produce a report analysing the livelihood differences between zones focusing on issues of maximum access and expandability<sup>4</sup>. The MVAC has already begun to use the baseline information from the 11 zones to assess the current year situation with respect to food and livelihood security and to predict the effects of changes in the external environment (e.g.. impact of different maize price increases during the coming hunger season)<sup>5</sup>.

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<sup>1</sup> National Economic Council (Now Ministry of Economic Planning and Development), "Profile of Poverty in Malawi, 1998:Poverty Analysis of the Malawi Integrated Household Survey, 1997-98", (November, 2000) and "Detailed Tables For A Poverty Profile of Malawi, 1998, (December 2000).

<sup>2</sup> Also often referred to as the 'Food Economy Approach'.

<sup>3</sup>The MVAC rezoning exercise is not discussed in this report. For a full description of the livelihood rezoning exercise see, "Report on Malawi VAC Livelihood Zones Revision Exercise in May 2003", Malawi VAC October, 2003.

<sup>4</sup> Maximum food access is a concept that is useful for comparing levels of poverty and wealth across different wealth groups in the same zone and across different livelihood zones. Maximum food access is a measure of the maximum amount of food a household could consume if they used all available cash (except cash required for purchasing their minimum non-food requirements) for purchasing food.

<sup>5</sup> See MVAC, "The Malawi Food Security Assessment Report: 2003-2004 Agricultural Marketing Year", August 2003.

## 2 KEY CONCEPTS AND METHODOLOGY

This section explains a number of key concepts and methods, which are essential for understanding how data has been gathered, analysed, organized and presented in this report.

### 2.1 The Household Economy Approach (HEA)

The Household Economy Approach (HEA) is based in Amartya Sen's theory of exchange entitlements and economic theories of risk.<sup>6</sup> It was first developed and used by major international agencies during the 1990s to assess the impact of shocks, such as natural disasters, on food security and livelihoods and is now accepted as a standard methodology that is widely used by WFP, USAID, FAO and others. The HEA first describes and quantifies household economy or the way in which typical households, with defined wealth group characteristics, survive in normal times. This understanding and quantification is then combined within an analytical framework to assess the current situation with respect to food and livelihood security and to predict the effects of changes in the external environment (for example, crop failure, increases in production costs or market prices, loss of markets, etc.). Various national governments, donors, UN agencies and NGOs have also used the approach in a wide range of development contexts. More recently, applications linking macro and micro level policy analysis have been explored, particularly in relation to Poverty Reduction Strategy Papers (PRSPs)<sup>7</sup>. This is an area that the MVAC would like to explore further once the baseline and monitoring system is fully established.

Since this report presents only HEA baseline information, not analysis or predictions, a full explanation of the analytical methodology is not presented here (see footnote for references to a full description of the HEA approach and methodology).<sup>8</sup> A short overview of the main elements of the basic analytical framework is presented in Appendix I.

### 2.2 Four Steps in HEA and Key Concepts<sup>9</sup>

There are four steps in a household economy analysis. The first two are concerned with dividing the population into groups of households that share similar characteristics in terms of their access to food and income. The assumption underlying these two steps is that access to food and income is determined by two factors: *geography* and *economic status* (i.e. relative wealth). While geography (where a household lives) determines the *options* for obtaining food and income, wealth generally determines a household's *ability to exploit those options*. The third step involves developing a baseline picture of food access, income and expenditure for each wealth group. The fourth and final step is to combine information on baseline access with that on hazard and response in order to generate projections of future food and income access.

**Step 1: Livelihood Zoning.** This involves mapping out Livelihood Zones or areas where households share similar options for obtaining food and income. The approach is to identify those factors (such as climate, soil, proximity to rivers, access to markets etc.) that determine the basic food and income options (the crops that will grow, the livestock that can be raised, the wild plants that can be collected, the fish that can be caught, and so on) and then to group similar areas together. In the case of Malawi, the exercise was one of updating an earlier food economy zone map prepared by Save the Children dating from 1996. This was done through a review of available secondary source material, a workshop at national level involving all VAC members and a series of key informants interviews at district level with relevant technical personnel<sup>10</sup>.

All aspects of a household food and livelihood economy are influenced by seasonality and are therefore not constant over time. Understanding seasonal variations is therefore essential in HEA analysis in order to.

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<sup>6</sup> See Sen, A. Poverty and Famines: An essay in entitlement and deprivation. Clarendon Press, (1981) and \_\_\_\_\_

<sup>7</sup> See papers produced by Jose Lopez SC UK Tanzania Programme ([Cindy get full references](#)).

<sup>8</sup> For a full description of the approach and methodology see Boudreau, T. "The Food Economy Approach: A Framework for Understanding Rural Livelihoods". Relief and Rehabilitation Network Paper, Overseas Development Institute, London (1998). Seaman, J. et. al. "The Household Economy Approach: A Resource Manual for Practitioners". Save the Children –UK, London, (2000).

<sup>9</sup> This sections draws heavily upon different HEA training manuals, including "Food Economy Training: The Field Method", Food Economy Group (FEG) draft May 2003; "The Household Economy Approach (HEA): Training Pack for Trainees (Level 1), Save the Children – UK, Food Security Livelihood Unit, 2000.

<sup>10</sup> For a full report on this exercise see, "Report on Malawi VAC Livelihood Zones Revision Exercise in May 2003", Malawi VAC October 2003.

- Understand the seasonality of different crops produced in the livelihood zone by different wealth groups, i.e. when they are planted, eaten green, harvested, sold and stored,
- Understand food, income, and labour access for different groups in different seasons of the year,
- Identify and monitor trends and changes over time (e.g. monitoring the impact of interventions),
- Determine which indicators are useful for monitoring seasonal food and income access,
- Discover correlations and connections between different seasonal patterns (such as precipitation, income and expenditure) which might help to understand causes and effects,
- Periods when production and consumption are unbalanced (when income-expenditure = debt)
- Identify periods of rainfall and water levels

The basic tool for seasonal analysis in HEA is the *Seasonal Calendar*, which is a visual representation of the timing of access to main food and income sources during a normal or typical year. The MVAC assessment team developed seasonal calendars through district and community key informants for each of the Livelihood Zones.

**Step 2: Wealth Breakdown.** The second step is to break down the population within a particular Livelihood Zone into groups of households according to their ability to exploit the local food and income options of the zone. Within any community, even one where everybody can be considered poor in absolute terms (i.e. compared to other better off parts of the country or compared to those living in other countries), there will be different types of household, who live in different ways, and who will respond in different ways (with differing levels of success) to external shocks (e.g. crop failures, price increase, loss of labour markets, etc). This is also true in rural Malawi where 65% of the population is considered 'poor' - the rural poor in Malawi are not homogenous.

The major factor that differentiates one 'type' of household from another is 'wealth'. In HEA, '*wealth groups*' or socio-economic groups within a Livelihood Zone are sets of households who have similar levels of assets, and employ similar strategies to gain access to food and cash income. In HEA, wealth is in relative (and local) terms not absolute terms. Statistical data may indicate that 80% or even 90% of the rural population in the district lives below the national poverty line, but this is a measuring poverty on a national, absolute scale. In a livelihoods analysis we are interested in understanding some of the differences in livelihood patterns between different groups within the community – in which case it is not particularly useful to lump 80% or 90% of the population together in one group. In an analysis of relative wealth, the '*middle*' are in the majority. '*Poor*' means poorer than most households, while '*better-off*' means better off than most households.

Wealth groups are derived from community-based key informants, with guidance from the HEA practitioner using different rapid rural appraisal techniques (i.e. proportional piling, etc). A wealth breakdown has two elements: (1) a division of the population (i.e. an estimate of the percentage of the population falling into each group) and (2) a description of the key defining resources and characteristics of the wealth group. In each Livelihood Zone the different wealth groups are identified and described and it is these groups, which form the basis for the focus group interviews from which baseline access information is obtained. The population can be divided into three, four, five or more wealth groups, depending on how the community view their society as well as the purpose and level of analysis required in the HEA. The most frequently used number of groups, and which the MVAC chose for the current baseline is three: 'poor', 'middle' and the 'better-off'. The extreme ends of the wealth spectrum: the very poorest (destitute) households that are largely dependent on charity, or the richest households (the 'richest of the rich'), are normally not of interest in HEA analysis. These two groups tend to constitute only a small minority of households, and in the case of the former are often not economically active.

The criteria used to divide households into wealth groups depend on the defining characteristics that define the options of accessing food and income. Relative wealth is determined by a number of factors including landholding, cultivation size, capital, skills and/or household labour, and livestock holdings. In a pastoral society, wealth may be primarily determined by the size of one's cattle herd, while in an agricultural society wealth is more likely associated with land ownership, as well as livestock ownership. In the case of Malawi, the rural economy is predominately subsistence agricultural with limited livestock holdings and cultivation size and production levels are less a factor of access to land than the ability to access agricultural inputs (i.e. fertilizer, seeds, farm implements and labour). Wealth groups were therefore largely determined by the size

of land cultivation and production levels of the household, as well as access to capital and agricultural inputs.

**Wealth groups are different from a vulnerable group.** It is important to highlight that in HEA defining ‘wealth’ is not defining ‘*vulnerability*’. It is not possible to talk about ‘vulnerable’ groups without giving a context (i.e. cattle disease, drought, closure of markets), as households are vulnerable to different things. A poor household, that does not purchase staple food is not very vulnerable to increases in staple food prices, but are vulnerable to crop failure through drought. A rich household, who purchases all their food and buys this food through the sale of tobacco, is vulnerable to tobacco crop failures and export markets closures. Poverty and richness are relatively constant states – a household is poor all the time, but vulnerability depends on the context --the same household is vulnerable to food failure in some circumstances, but not in others. ***This is a critical distinction in understanding what is meant by the term “vulnerability”.***

**Step 3: *Analysis of Baseline Access.*** An analysis of baseline access involves the analysis of sources of food, income and expenditure in a reference year (i.e. generally defined as a typical or normal year) for typical households within each wealth group. The process is one of:

- Identifying sources of food and income and their relative importance to the household’s total food and income access,
- Quantifying access to food and income and expenditure over a 12-month baseline period.

**Sources of food** are foods the household consumes and include food gained through own crop and livestock production, exchanged with labour or other commodities, purchase, collection (e.g. wild foods, hunting, fishing, etc.), gifts and relief. The importance of differentiating between methods by which food is achieved is that the way a household gets food defines its vulnerability for example; a household is really vulnerable to crop failure if the household grows crops<sup>11</sup>. The analysis provides an understanding of the how and how much food and income are obtained from different sources within a reference year and provides the starting point for analysing the impact of a hazard.

Due to the problems of ‘adding up’ different foods, HEA focuses on adequacy of household access to food energy as measured in terms of kilocalories (kcal)<sup>12</sup>. All ‘food’ consumed by a household are first converted into kcal equivalents of energy using food composition tables<sup>13</sup> and then each total kcal for the different sources of food is expressed as a percentage of total kilocalories of food consumed. To assess whether a household has adequate access to food total energy value is compared against a ***minimum calorie requirement*** for the household based upon household size<sup>14</sup>.

**Sources of income** in HEA are sources of cash income derived from sale of goods or services, including sales of crops, paid employment (casual labour or ganyu), livestock and livestock product sales, natural resource exploitation (i.e. charcoal, firewood, honey, grass, etc), self-employment (i.e. petty trade, small business, handicraft sales, etc.), and land/asset rental. ***Cash income*** is net income rather than gross meaning that production costs are deducted from gross income.

**Step 4: *Outcome Analysis.*** Outcome analysis refers to the effects of a ***hazard*** such as price increases or crop failure on ***future*** access to food and income, so that decisions can be taken about the most appropriate types of intervention to implement. The rationale behind the approach is that a good understanding of how people have survived in the past provides a sound basis for projecting into the future. Three types of

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<sup>11</sup> This is a simplification to highlight the point. It might be more complicated in that the household is still affected by crop failure since they are reliant on exchange of labour (e.g. weeding) for food. Crop failure could lead to reduced labour demand and increased vulnerability for the households dependent on supplying labour to access food.

<sup>12</sup> For a full discussion of individual and household energy requirements and application within HEA, see John Seaman, et. al. ***The Household Economy Approach: A Resource Manual for Practitioners***, SC UK 2000.

<sup>13</sup> Food composition tables are conversion tables of kilocalories per 100 gram of food. For a kilocalorie conversion tables and weights and measure conversion tables used in the MVAC Baseline Assessment, see “The MVAC Food And Livelihood Economy Field Handbook”, May/June 2003.

<sup>14</sup> A standard minimum energy requirement for a population with a developing country demographic profile is estimated at 2,070 per person kcal per day see WFP/UNHCR, “Guidelines for Estimating food and nutritional needs in emergencies”, 1997. MVAC uses an estimate of 2100 kcals/person/day in calculating minimum energy requirements.

information are combined: information on baseline access, information on possible *hazards* (i.e. factors that may affect access to food/income in the future) and information on *response strategies* (i.e. the sources of food and income that people will turn to when exposed to a hazard). The term ‘response strategies’ is preferred to the term coping strategy for two reasons. People often use coping strategies to refer to regular components of everyday livelihoods (e.g. firewood sale), which strictly speaking are only coping strategies when intensified in response to a hazard. Also, coping can imply that the strategy in question is cost-free, which is not always the case.

In the following descriptions of the Livelihood Zones a further distinction in response strategies is made: households respond in two ways to shock; they *expand existing strategies* and when the situation is severe they turn to a number of *distress strategies*. Response strategies change as the period of stress increases. Expansions of existing strategies are highly reversible (e.g. short-term dietary change) and require a low commitment of domestic resources. Distress strategies on the other hand are employed when the household is nearer to collapse and are employed when other coping mechanisms fail. Recovery after adoption of extreme distress strategies will come considerably later (if at all) than if an intervention had taken place at an earlier stage.

A distinction is also made between *chronic hazards* (one that affects households in the zone every year) and *periodic hazards or intermittent hazard* (one that affects households in some but not all years in the zone).

In summary, the approach can be summarised as follows:

$$\text{Baseline} + \text{Hazard} + \text{Response} = \text{Outcome}$$

This report presents baseline, hazard and some household response strategies as a background description of the different livelihood zones in Malawi and does not present any outcome analysis. Since this is not an outcome analysis report the analytical methodology is not presented here. (See Appendix II for more information). The MVAC will conduct regular outcome analysis as a vulnerability-monitoring tool. The MVAC conducted its first outcome analysis in July/August 2003 to assess the food security situation in Malawi for the 2003-2004 Agricultural Marketing Year<sup>15</sup>.

### 3 MALAWI BASELINE LIVELIHOOD ASSESSMENT

#### 3.1 Sources of Information and Method of Collection

There are six types of information needed in a household economy analysis and the data required to complete these is collected at several different levels, as shown in Table 1. This report contains a description of the first five categories of information that MVAC collected during the May-July 2003 Assessment (LZ Rezoning, Wealth Breakdown, Baseline Access, Hazard, and Response).

Table 1: Sources of information	Six Categories of information in Household Economy Analysis					
	LZ Zoning	Wealth Breakdown	Baseline Access	Hazard	Response	Outcome
Secondary Data	X			X		
National/District Workshop	X					
District Key Informants	X	X		X		
Market visit/Trader interview				X		
Community key informants		X		X		
Wealth group focus group			X		X	
Assessment team						X

<sup>15</sup> See MVAC. “The Malawi Food Security Assessment Report: 2003-04 Agricultural Marketing Year”, August 2003.

The basic method for data collection in HEA focuses on the use of rapid rural appraisal (RRA) and participatory rural appraisal (PRA) tools and interview techniques. Two features of this approach are that the field enquiry is semi-structured (i.e. it is sufficiently flexible to allow the enquiry to take an unexpected direction, should this be necessary), and that at least the preliminary analysis is carried out on the spot (allowing information to be cross-checked or important leads to be followed up before the team leaves the field). In the field, information is gathered primarily through key informant and focus group interviews undertaken at various levels.

The process is summarised below:

Table 2: MVAC Baseline Assessment Interviews, Participants and Outputs

<i>Level at which interview undertaken</i>	<i>Participants in the interview</i>	<i>Outputs</i>
<i>National</i>		-
<i>District</i>	Technical staff from local government (e.g. Ministry of Agriculture, Irrigation and Food Security), NGOs and other relevant organisations.	<ul style="list-style-type: none"> <li>- Verification of Livelihood Zones within the district</li> <li>- Information on recent hazards affecting food security (including recent crop production data)</li> </ul>
<i>Community/Village</i>	Community key informants	<ul style="list-style-type: none"> <li>- Seasonal Calendar of crop production and other food and income acquisition strategies</li> <li>- Wealth Breakdown</li> <li>- Information on recent hazards and responses to these</li> </ul>
<i>Individual wealth group</i>	Focus groups consisting of members of a specific wealth group	<ul style="list-style-type: none"> <li>- Quantified data on food and income access for a 12-month baseline period.</li> <li>- Information on current hazard and response strategies.</li> </ul>

### 3.2 Defining the Baseline Year

One objective of the assessment in Malawi was to generate information that could be fed into decision-making concerning longer-term policy and programming. For this reason it was considered desirable to develop an analysis for a ‘normal’ year, i.e. one that could be considered reasonably typical of conditions prevailing in Malawi in most years. It was not easy to select a *specific* recent year that met this criterion, since 2001 and 2002 had been crisis years, while the two years before that were years of unusually good production. For this reason questions were asked at village level about a more general ‘normal’ year. Provided it was carefully explained, ‘normal’ was a concept that seemed well understood by village informants in the field. In practice, it often meant a year of production rather like the current year. Of course, a normal year in one region may not be a normal year in another, as was the case for Central Karonga and Western Rumph/Mzimba Livelihood Zones this year. The current year was not used to define the normal year in these zones.

The problem of defining ‘normal’ applies equally to market prices. This is especially the case for maize, the price of which has fluctuated considerably in the last two years, making it difficult to know what can now be considered ‘normal’. There is also the complication of inflation, which means that prices from 3 or more years ago (which were much lower than now) have little relevance today. The team therefore opted to construct the baseline using prices from the last 12 months. In practice this meant using an average purchase price for maize of roughly 17 MK/kg, which is high by historical standards, and may also be high in relation to the next 12 months.

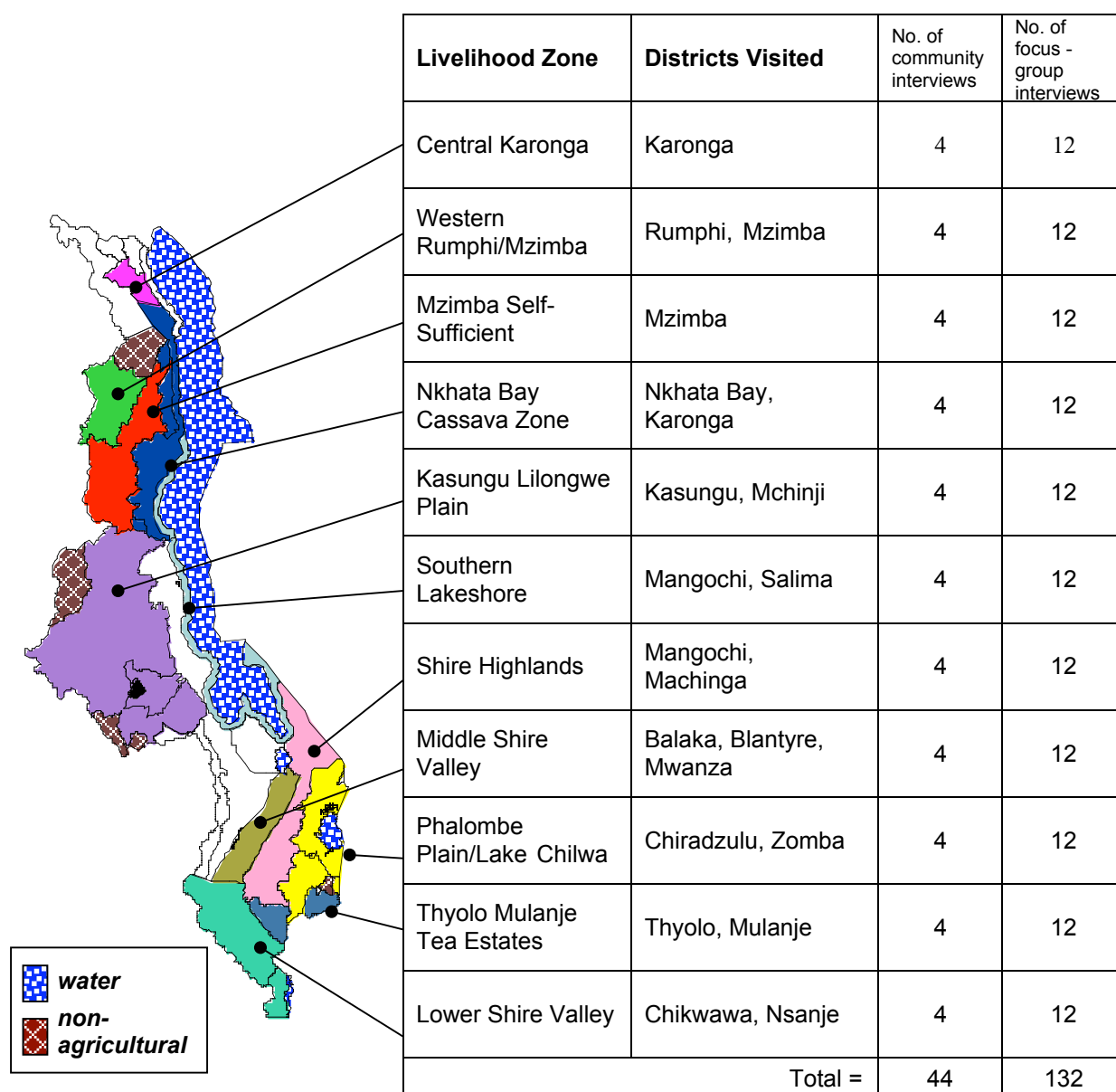
### 3.3 Scope of the Baseline Survey

A total of 17 zones were defined during the re-zoning exercise. Due to a limitation on resources only 11 of these could be included in the livelihoods baseline assessment survey (see Figure 1). The 11 of the 17 Livelihood Zones were selected based upon a number of factors, including (a) population (to include as

large a proportion of the national population as possible), (b) known vulnerability to external hazards and (c) expected levels of crop production this year.

From within each zone, two districts and four villages were selected for fieldwork<sup>16</sup>. Villages were selected according to information provided by the district-level key informants. The aim was to visit villages considered reasonably typical of the zone as a whole. In each village one community level and three focus group interviews were completed. *In total 11 livelihood zones, 21 districts, 44 community interviews and 132 focus group interviews (x poor, x middle, x better-off) were conducted in the initial baseline survey.* A complete list of the sample of villages surveyed is presented in Appendix III.

**Figure 1: Livelihood Zones Visited & Number of Interviews Completed**



<sup>16</sup> Livelihood Zone boundaries generally follow EPA boundaries, not district boundaries, so that a single district may include parts of more than one Livelihood Zone. Where a district is listed as included in the exercise, fieldwork was undertaken in that part of the district falling within the boundaries of the required zone.

### 3.4 Implementation of Baseline Survey

The assessment involved four modules of activities over a continuous period of two months from May 5 to July 4, 2003. Capacity building and training of MVAC members was an important component of the work and was fully incorporated within all four activities. Revision and updating of livelihood zones was the first activity, followed by a 10-day HEA training for MVAC field teams. Four MVAC field teams composed of 4 to 5 people completed the baseline fieldwork from June 4 – 26 2003, and a further week was spent on analysis. Approximately one week was spent in each of the zones covered.

The assessment was a joint exercise involving staff from the following MVAC members:

<ul style="list-style-type: none"><li>▪ Ministry of Economic Planning and Development</li><li>▪ Ministry of Agriculture, Irrigation &amp; Food Security</li><li>▪ Ministry of Health and Population</li><li>▪ Department of Local Government</li><li>▪ National Statistics Office</li></ul>	<ul style="list-style-type: none"><li>▪ FEWS NET</li><li>▪ World Food Programme</li><li>▪ Save the Children (UK)</li><li>▪ World Vision International</li></ul>
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Fifteen MVAC members participated in the four modules of which 9 were from government (MOAIFS, MEP&D, MOHP, NSO, & Department of Local Government) and 6 from international organizations (FEWS NET, SCUUK, WFP, WVI). Five consultants assisted in different components of the assessment in training and leading the MVAC team (2 FEWS NET/FEG consultants, 2 SC (UK) consultants, 1 local Malawian consultant).

## 4 INDIVIDUAL LIVELIHOOD ZONE PROFILES

This section presents a summary of the basic livelihood information contained within the MVAC livelihood baseline that was collected between May–July 2003. Information is presented by livelihood zone for each of the 11 livelihood zones surveyed to date. The MVAC baseline information will be used by the MVAC to monitor household food security and vulnerability, as well as a basis for further analysis designed to inform programming and policy on issues related to poverty alleviation and improved livelihood and food security. Information presented is detailed by livelihood zones and covers information on the: livelihood zone description, seasonal calendar, wealth groups, household's sources of food and cash by wealth group, information on the hazards to household food and livelihood security, household coping and response strategies, critical warning indicators for wealth groups and zones, and some recommendations on implications for programming derived from livelihood profiles.

The MVAC plans to set up a computer database monitoring system employing this baseline database within the next year, as well as conduct additional fieldwork to complete the baseline information for the remaining 6 zones not covered in the May-July 2003 baseline survey.

# Malawi Livelihood Profile

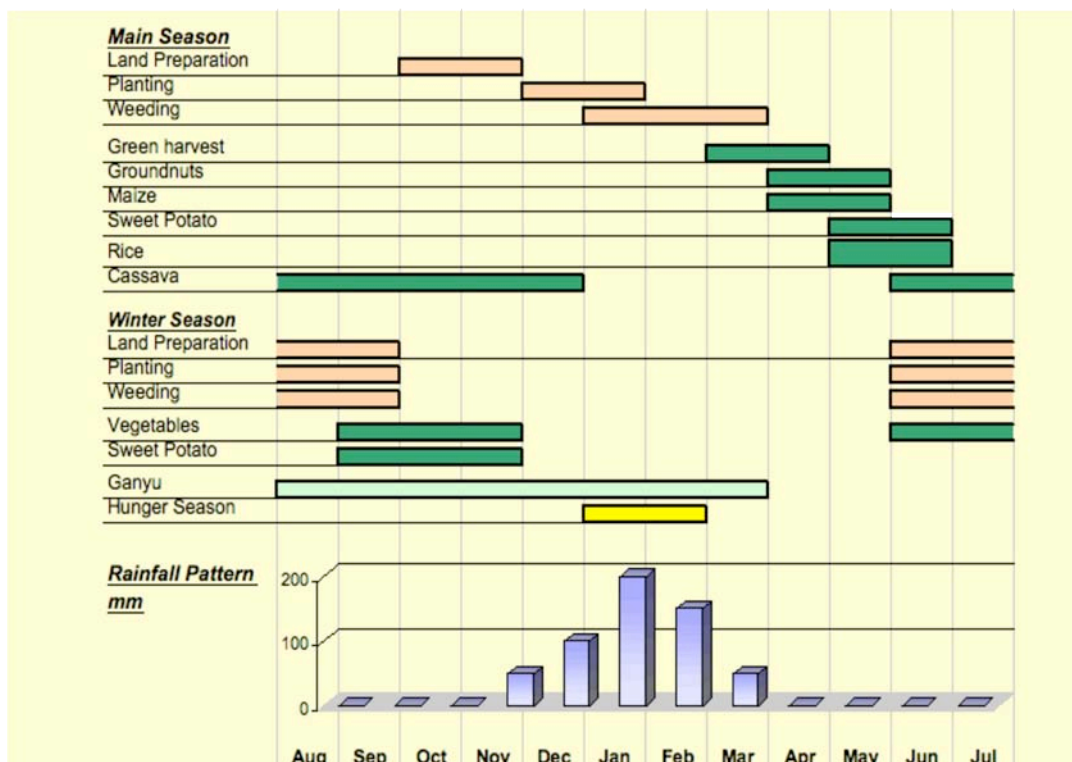
## CENTRAL KARONGA

### Zone Description

The Central Karonga zone includes part Karonga District in the Northern Region. The zone extends from the northern lakeshore area to the east, to the Chitipa Millet and Maize zone to the west. The Nkhata Bay Cassava zone lies to the south, and to the north is the Northern Karonga zone. Central Karonga is a relatively fertile, productive maize-producing area, with average annual precipitation of 1000 mm. The majority of households are able to produce in excess of three quarters of their household food requirements in normal years. Poor labourers from other parts of the country typically migrate to the zone to do *ganyu* on local farms. Livestock sales – principally cattle, pigs and poultry – provides between a third and a half of annual income for both ‘middle’ and ‘better-off’ households, a very significant contribution compared to other livelihood zones.

### Seasonal Calendar

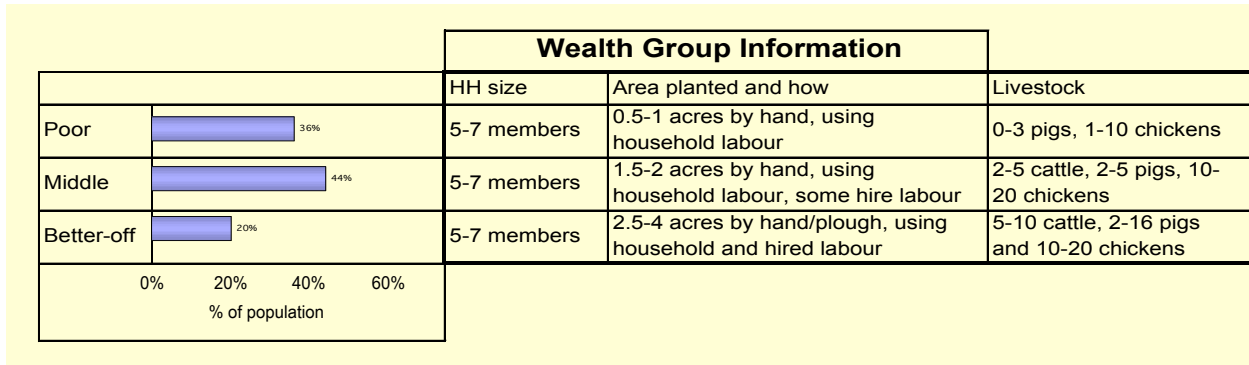
Main season crops (maize, groundnuts, sweet potatoes, pulses, rice and sorghum) are harvested from April until June. Many households also cultivate winter or *dimba* crops (sweet potatoes, rice and vegetables) for sale and consumption from June to December. Though maize is the dominant crop grown by all groups, cassava and sweet potatoes are important sources of food and cash in this zone. Sweet potatoes are harvested in both the main and winter seasons. Harvesting of cassava production peaks between June and mid-December. Agricultural *ganyu* (casual employment) is available for 10 months of the year, but the availability of employment peaks between mid-November and mid-March. This is an important activity for ‘poor’ households, many of whose food stocks are depleted by January. Food access declines as the main agricultural season progresses, culminating in the annual ‘hunger’ season in January and February. March signals the beginning of the green maize harvest, followed by the start of main season’s maize and groundnuts in April.



## Markets

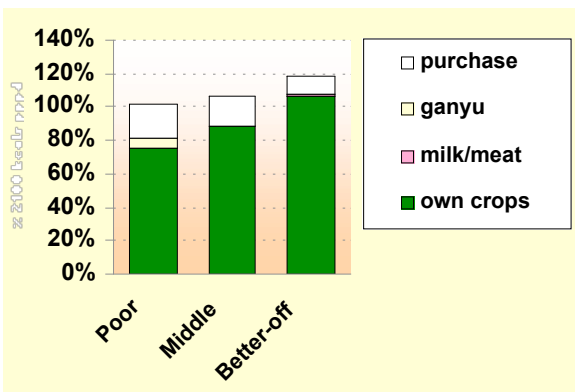
As a food surplus zone, Central Karonga attracts traders to local markets to purchase crops such as maize, sweet potatoes, groundnuts and cassava. ADMARC markets throughout the zone trade in food crops at controlled prices; private traders generally buy and sell in accordance with ADMARC prices. Farmers sell their animals directly to livestock traders or in the livestock markets established in large towns. Local agricultural markets are characterized by demand for labour in excess of local supply, resulting in in-migration of labour from outside of the zone.

## Wealth Breakdown



Access to food (with which to pay for labour) and access to cash and/or credit (for purchasing inputs and paying for labour) are key factors determining wealth within the zone. The 'better-off' have a greater area of land cultivated than other groups, use agricultural inputs, hire labour for both cash and food, and own productive assets (ploughs, ox-carts, oxen) that they hire out. Both the 'better-off' and the 'middle' have large livestock holdings in the form of cattle and pigs relative to the rest of the country. 'Poor' households use chickens for sale in normal years. 'Middle' and 'better-off' households sell chickens and pigs, and may sell cattle and/or increase the sale of pigs and poultry in crisis years.

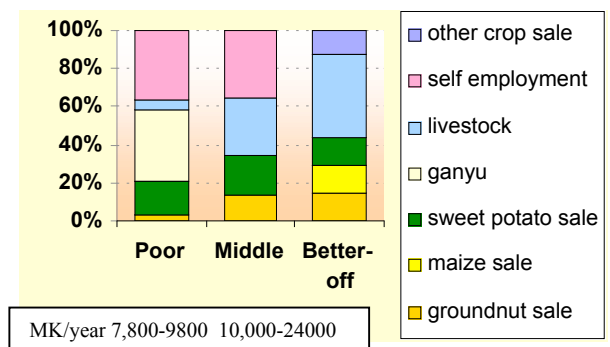
## Sources of Food



Household crop production is the main source of food for all households (e.g. cassava, maize, sweet potatoes, rice). Cassava consumption is significant accounting for 45%, 34% and 28% of own crop consumed for the 'poor', 'middle' and 'better-off' respectively. 'Poor' and 'middle' households purchase staple (e.g., maize) and non-staple (e.g., sugar) foods to supplement domestic production. The 'better-off' purchase a more diverse basket of food items (e.g., oil, rice, meat). Food in exchange for labour (*ganyu*) accounts provides only a small contribution. Despite the large livestock holdings in the zone, milk and meat consumption is insignificant for the majority of households, because animals are used as a source of income rather than for direct consumption.

## Sources of Cash

Over two-thirds of income for the 'middle' and 'better-off' is earned through the sale of crops and livestock. For the 'poor', three quarters of annual income comes from *ganyu* (particularly land preparation and ridging) and self-employment. The 'poor' earn the remaining income from crop and poultry sale. Sweet potatoes are an important source of cash for all three groups, as well as groundnuts to a lesser extent. Only the 'better-off' produce and sell surplus maize. The 'better-off' rely solely on crop and livestock sales for income, while both the 'middle' and 'poor' engage in petty trade and small businesses for cash (e.g., firewood, handicrafts).



MK/year 7,800-9800 10,000-24000

## Hazards

**Chronic/frequent hazards:** Dry spells are ranked as the most damaging chronic problem. When dry spells occur during maize tasselling in the months of February and March, they do the most damage to the crop production. Flooding is the second most damaging hazard. When flooding occurs during January and February, it washes away crops, fertile soils and sometimes causes water logging which causes tubers (like cassava and sweet potatoes) to rot. Armyworms are identified as the third most destructive hazard, affecting primarily maize production.

### Periodic hazards:

(NEED TO DRAW ON OUR COLLECTIVE KNOWLEDGE OF THE AREA FOR THIS ONE>>>>> THIS ZONE WAS NOT REZONED AND THIS QUESTION NOT ANSWERED IN DISTRICT INTERVIEW?????)

## Response Strategies

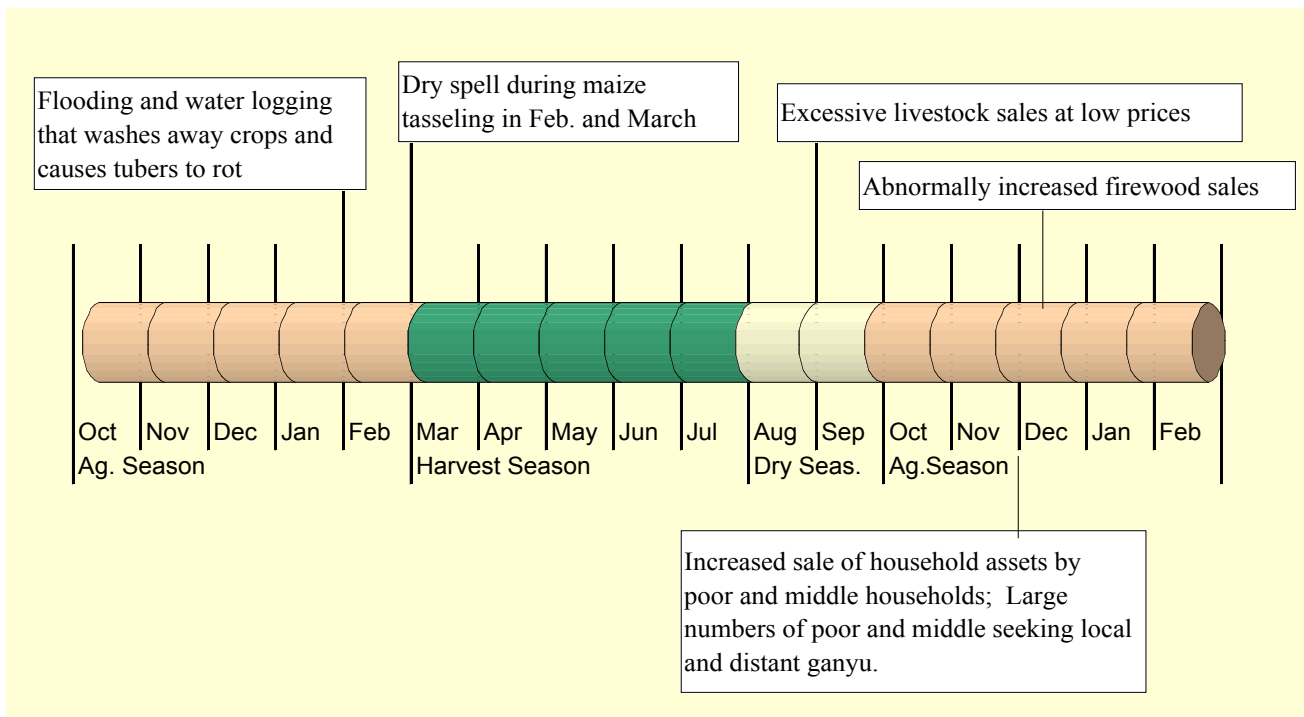
Households respond to shocks in two ways; they expand existing strategies and when the situation is severe they turn to a number of distress strategies.

Expansion of existing strategies	Distress strategies
<p><u>Increased livestock sales.</u> Poor and middle increase sale of poultry, while ‘middle’ and ‘better-off’ increase sale of pigs and or sell cattle.</p> <p><u>Local ganyu.</u> The poor and the middle seek agricultural ganyu. Work is sought locally, as well as more distant areas (like Southern Karonga). Poor individuals migrate to southern Karonga to do ganyu on cassava plots in exchange for cassava. In a normal year, the middle group do not do ganyu, but in a bad year will do ganyu.</p> <p><u>Increased non-farm sales.</u> The poor will increase sale of firewood, hoe handles and mats, while to middle will increase barter/trade activities (e.g. trading rice paddy for vegetables).</p> <p><u>Consumption of other crops generally sold.</u> All three wealth groups in a normal year sale some portion of their food crops. A common expansion strategy in a bad year is to reduce or eliminate the sale of food crops and keep them for own consumption. The poor and middle would reduce the amount of sweet potatoes and groundnuts sold, while the well off have the option of reducing sales of these crops, plus the sale maize and cassava.</p> <p><u>Expenditure Switching.</u> For the middle and well-off switching expenditure on non-food items (e.g. clothes) to staple foods is possible.</p> <p><u>Hiring out of farm implements.</u> The ‘better-off’ will hire out farm implements more often and for longer periods (e.g. plough, ox-carts, oxen) given sufficient demand.</p>	<p><u>Excessive sales of livestock at low prices.</u> An expansion coping strategy, which can turn to a distress strategy when households sell breeding stock or their last livestock holdings at very low prices.</p> <p><u>Household asset sales:</u> An option for all three wealth groups, but of limited value for ‘poor’ households given their limited asset holdings. The ‘poor’ will sell clothes, while the ‘middle’ sells blankets, clothes, bicycles, and radios.</p> <p><u>Reduced number of meals.</u> Reducing the number of meals taken is a common strategy, but can reach extreme life-threatening levels during a severe crisis.</p> <p><u>Eating of maize husks.</u> Maize husks is mixed with a few grains of maize.</p>

## Crisis Warning Indicators

The figure below illustrates the main crisis warning indicators for the zone and their timing as the season progresses. Dry spells during February and March during maize tasselling are an acute and recurrent problem for this area. A maize crop failure alone, however, does not indicate a crisis for this zones, as maize accounts for less than 25% of food consumption for all three wealth groups. Sweet potatoes and

cassava, both drought resistant crops, account for 44% of 39% of food consumption for the poor and middle respectively. Flooding during January and February is a greater threat to food security when it washes away crops, soils and causes water logging that rots tubers such as cassava and sweet potatoes. Early and excessive sales of livestock at low prices from August onwards are an indicator of stress and potential crisis. Another crisis indicator, especially for the poor are abnormally increased firewood sales. Similarly, an increase in the number of people seeking local and distant *ganyu*, and a decline in payment rates progressively from September through March, are crisis-warning indicators for the zone.



## Main Conclusions and Implications

This zone is characterised by fairly diversified livelihoods in terms of access to food and income. Most households are able to meet 80% - 100% of food consumption needs from own production, as well as sale some portion of production for cash. All households benefit from diversified crop production, which includes drought resistant crops. The three main food crops are maize, cassava, and sweet potatoes. Cash incomes are diversified for the 'poor' and 'middle'; therefore incomes are more resilient to shocks. Livestock holdings, even though small, are fairly large as compared to the rest of the country (chickens, pigs, cattle) which provides some livelihood diversity, and means of coping in bad years for the 'middle' and 'better-off'. The poor have limited livestock holds.

### Implications for Programming

- ❑ *Accessible and affordable credit for input purchase for poor and middle households. Extend credit to women's groups.*
- ❑ *Livestock restocking for the poor and middle wealth groups. The poor especially have very small livestock holdings (and primarily chickens) and would benefit from increased holdings (e.g. pigs).*
- ❑ *Re-establish livestock markets and broader market links to central and southern Malawi.*
- ❑ *Expansion of irrigation schemes and inclusion of poor and middle wealth groups. Current irrigation schemes provide noticeable benefits in cash and food options for participants through the production of vegetables, rice and other crops, but a limited number of households benefit.*
- ❑ *Programmes to minimize flooding and 'wash aways'.*
- ❑ *Road construction and improvements on feeder road.*

# Malawi Livelihood Profile

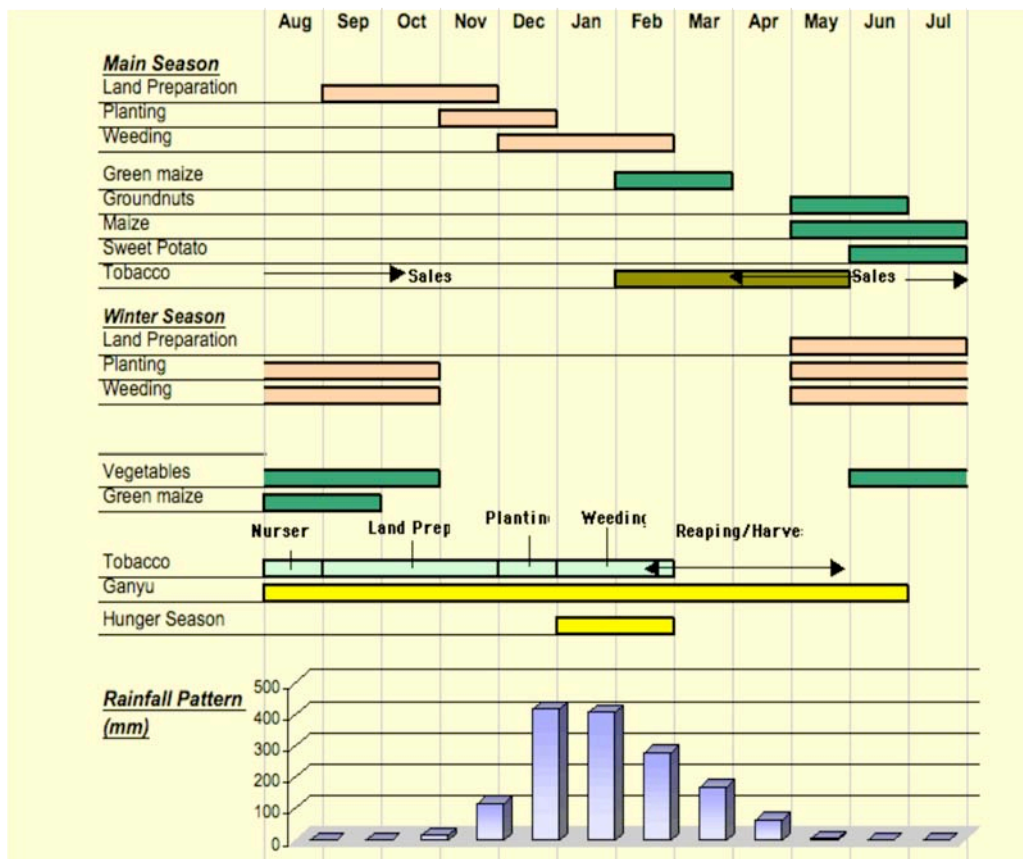
## WESTERN RUMPHI AND MZIMBA

### Zone Description

Western Rumphu and Mzimba zone includes parts of Rumphu and Mzimba districts, lies to the southwest of Nyika National Park, to the northwest of the Mzimba Self-Sufficient zone, and to the east of Zambia. The zone encompasses three EPAs: Bolero EPA and Mpherembe EPA in Rumphu District and Euthini EPA in Mzimba district. A predominantly maize-producing zone with a rainfall level of 900 mm/year, the zone also benefits from high levels of tobacco cultivation and opportunities for wild food collection (in Nyika National Park and Vwaza Game Reserve). Almost all households cultivate tobacco, which leads to high dependence on tobacco sales for household income as well as relatively high market dependence for food purchase by the 'poor'.

### Seasonal Calendar

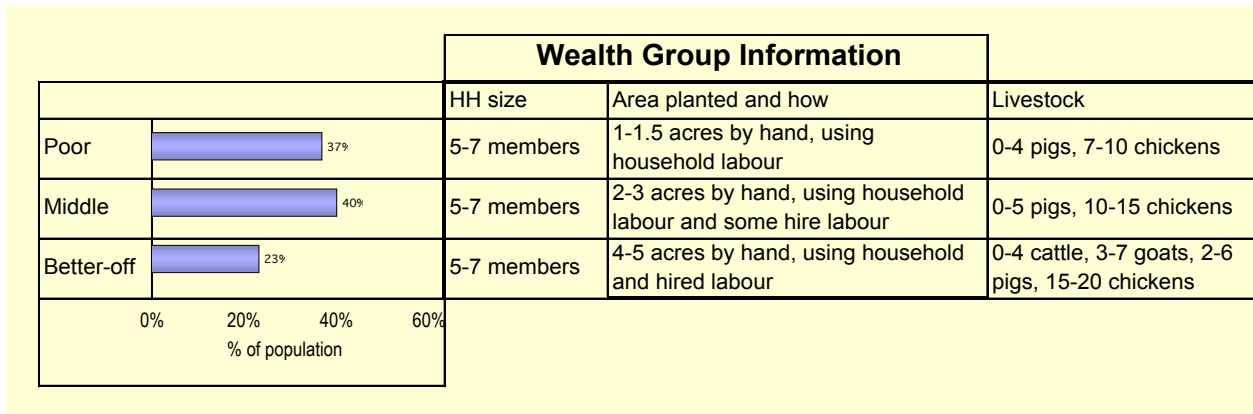
The main season crops (maize, groundnuts, sweet potatoes and pulses) are planted in November until January and harvested from March until July. Better off households also cultivate winter or *dimba* crops on small plots of low-lying land from June to October. The main *dimba* crops are vegetables (for sale and consumption) and maize, most of which is eaten green. Tobacco, a major source of income for most households for the zone, is harvested in February to May, and sold from April to July. The rainy season for the main agricultural activities starts in mid November and ends in mid April; land preparation, i.e. cleaning and ridging, starts in August and peak period is from September to mid November. During harvest prices of food crops tend to be low because every household has food but from December to the end of March the prices are higher. With the resumption of agricultural activities in September, many poorer households turn to casual agricultural labour or *ganyu* for both food and cash. Food access declines as the season progresses, reaching a low point in January and February, the annual 'hunger' season. This ends in March with the harvesting of new season green maize, and households begin to have access to different sources of food and income from crop production.



## Markets

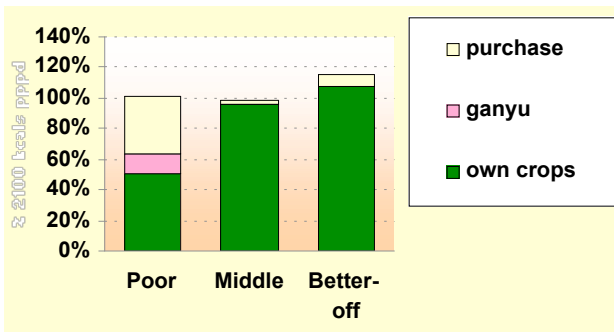
The Western Rumpi and Mzimba zone is barely self-sufficient in maize in normal years, and as such engages in maize purchase in ADMARC markets and from private traders. Livestock are sold directly to traders who purchase from rural areas, as well as in livestock markets in the Region. Tobacco is transported to Lilongwe auction floors by via middlemen.

## Wealth Breakdown



The area of land under cultivation and access to agricultural inputs largely determines wealth. The 'poor' roughly cultivate around a quarter of an acre of tobacco, the 'middle' three quarters of an acre and the 'better-off' 1-acre and above. The 'poor' eat from own production for only six months, the 'middle' about 12 months and the 'better-off' more than one year. The main constraint for 'poor' households is the lack of agricultural inputs and enough time to concentrate on their own farms, especially during the hunger period. The 'poor' and 'middle' sell and eat chickens in a normal year, and expand their sale in crisis periods. The 'better-off' sell and eat chickens in normal years, sell pigs and goats in normal years, and expand the sale of pigs and goats in crisis periods. For the 'poor', because food production is lower than in other zones, income from tobacco is vital to the purchase of food and other necessities.

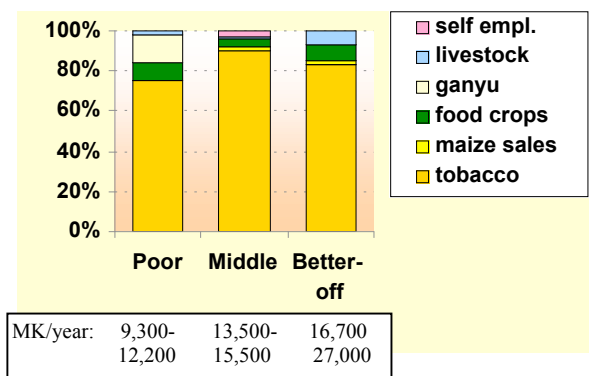
## Sources of Food



The 'middle' and 'better-off' can cover all of their consumption requirements from their own crops. Both are heavily dependent on maize production, which accounts for over three quarters of total annual food needs as well as income from sale of surplus. Minor crops include groundnuts, sweet potatoes and pulses. For the 'poor', crop production covers only about half of annual food needs. They are heavily dependent on food purchases, which they fund primarily through tobacco sales. They also rely on food payments from *ganyu* in the hunger season of January to March.

## Sources of Cash

Most income for all three groups comes from the sale of tobacco. There are large differences in income between the groups, reflecting their different levels of production. Sale of tobacco provides between half and two thirds of income. Not only do the 'better-off' produce more tobacco, they also produce a better quality leaf with more intensive management and are paid a higher price for it. This reflects their greater access to credit for the purchase of fertilizer. Sale of groundnuts, sweet potatoes, and pulses is important to the cash flow within the year, as tobacco payments are received in individual instalments. *Ganyu* provides the second most important source of cash income for the poor, but the sale of other crops (sweet potatoes, groundnuts, and beans) is also large.



## Hazards

**Chronic/frequent hazards:** The main chronic hazard in this zone is dry spells, which can cause considerable damage to maize production when it occurs during the time maize is tasselling. The second major chronic hazard cited by households is Newcastle Disease in chickens. This frequent problem ensures that the number of chickens a household can keep remains low. When an outbreak occurs all chickens may be wiped out completely forcing households to start again from nothing. Households maintain that low maize prices combined with high input costs as one of the major chronic hazards they face, as well as low tobacco prices. Households are dependent on middlemen for sales; therefore they have limited control and information on tobacco costs incurred once tobacco leaves the farm.

**Periodic hazards:** Serious drought strikes about twice in ten years; flood like ‘wash aways’ occur periodically in some areas emanating from the Nyika Plateau and surrounding hills.

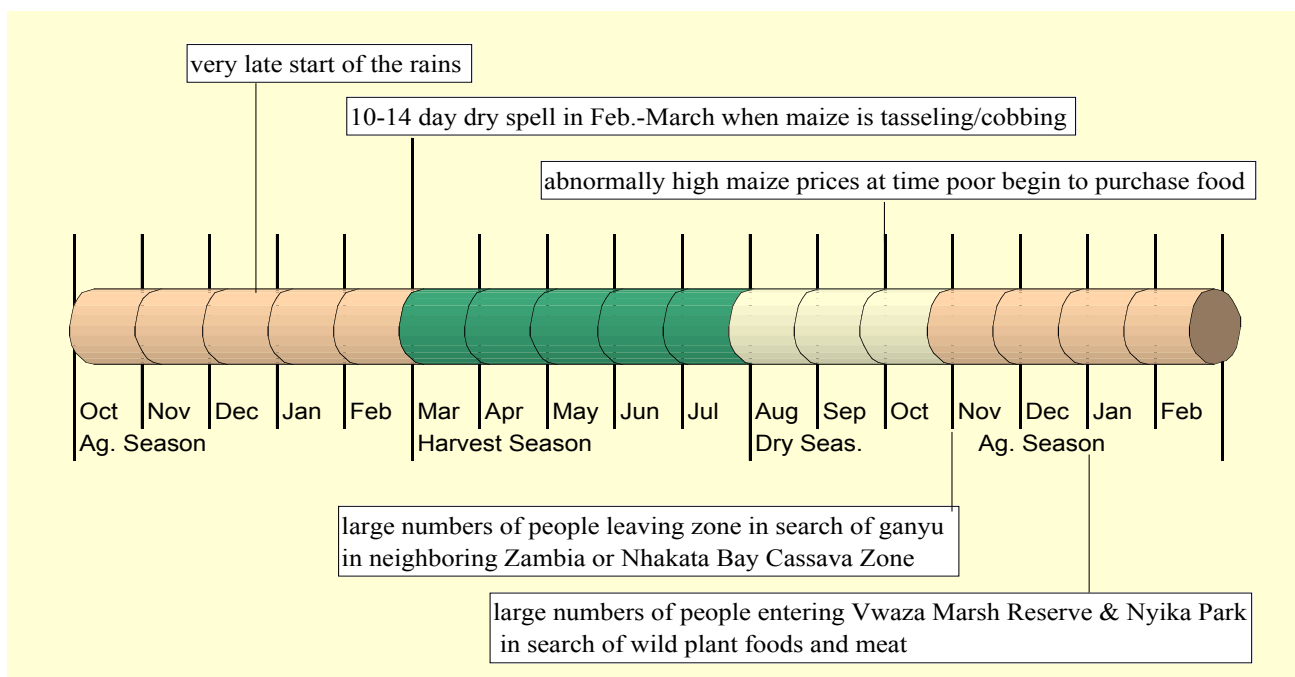
## Response Strategies

Households respond in two ways to shock such as crop production failures; they expand existing strategies and when the situation is severe they turn to a number of distress strategies.

Expansion of existing strategies	Distress strategies
<p><u>Food purchase.</u> Food purchases can be expanded using income generated from tobacco sales for all three wealth groups. If the retail price of maize also increases dramatically, then the poor have limited ability to expand this option.</p> <p><u>Expenditure Switching.</u> For the middle and well-off switching expenditure on non-food items (e.g. clothes) to staple foods is possible.</p> <p><u>Local ganyu.</u> Both ‘poor’ and ‘middle’ attempt to expand local ganyu in a crisis, but only limited additional work tends to be available. Labour rates may also decline, and ganyu income may actually fall.</p> <p><u>Distant ganyu.</u> Additional ganyu can be found the nearby cassava producing Nkhata Bay Cassava Livelihood Zone or across the border in Zambia. Labour rates are generally low. Ganyu in cassava producing areas is generally paid in kind in the form of cassava flour or tubers.</p> <p><u>Consumption of other crops generally sold.</u> All three wealth groups in a normal year sale a portion of their food crops (e.g. maize, sweet potatoes, beans, groundnuts). A common expansion strategy in a bad year is to limit or eliminate the sales of food crops. Poorer households have limited capacity to expand this strategy, as production is small.</p> <p><u>Livestock sales:</u> An option for all three wealth groups, but yielding limited returns for the ‘poor’ and middle since chickens are their only livestock holding.</p>	<p><u>Increased consumption of wild foods and roots:</u> In times of severe food shortage ‘poor’ and ‘middle’ households increase collection and consumption of wild foods and meat from Vwaza Marsh Reserve and Nyika Plateau Game Park.</p> <p><u>Asset sales:</u> An option for all three wealth groups, but of limited value for ‘poor’ households given their limited asset holdings. The ‘poor’ will sell clothes, while the ‘middle’ are more likely to sell bicycles or radios.</p> <p><u>Extreme Reduction in number of meals.</u> Reducing the number of meals taken is a common strategy, but can reach extreme life-threatening levels during a severe crisis.</p> <p><u>Work in Tobacco Estates.</u> The poor during severe crisis will seek employment in the large tobacco estates are below subsistence and only those with no other options engage in this strategy.</p>

## Crisis Warning Indicators

The figure below illustrates the main crisis warning indicators for the zone and their timing as the season progresses. A very late start to the rains is the first indicator of possible failed crop production. Dry spells during the critical stage of maize tasseling and cobbing are the most significant indicator of crop failure. Abnormally high market price for maize at the time when the poor begin to purchase food (Sept. and October) is a key indicator for a crisis in access for the most vulnerable. Crop failures combined with abnormally high prices are indicators of a serious crisis for the poor. A later indicator of a crisis is the occurrence of large numbers of labourers leaving the zone beginning in October in



search of ganyu in neighbouring Zambia and Nkhata Bay Cassava Zone. Unusually large numbers of people entering the Vwaza Marsh Reserve and Nyika Park in search of wild plant foods and meat is an indicator of a crisis.

The zone is heavily dependent on tobacco; therefore any shocks to the production and marketing of tobacco would immediately translate into increased vulnerability, especially for the poor and middle wealth groups. Indicators to monitor would include abnormally high input prices, unavailability of credit or tobacco loans, reduced market uptake of small-scale farmer tobacco, unusually low tobacco prices, and excessively high price hikes in transportation and middle-men costs.

## Main Conclusions and Implications for Programming

This zone is characterized as a subsistence maize and tobacco dependent economy. All wealth groups are involved in tobacco production through member associations. The middle and 'better-off' can cover all of their consumption requirements from their own crops, but both are heavily dependent on maize production for own consumption and sales. The poor can cover only half of their consumption requirements from own crops and are heavily dependent on food purchases to meet most of their remaining food needs, which they fund through tobacco sales. This limited economy makes the poor and middle highly vulnerable to shocks. The combined shocks of crop failures and market shocks of abnormally high food purchase prices will create a food crisis situation for the vulnerable.

The zone benefits from the close proximity of the largest cassava production area in the country, which is a common coping response strategy during times of crop failures and crisis to access food through *ganyu* working in cassava fields. The presence of the Vwaza Marsh Game Reserve and Nyika National Park provide limited options for increased wild food and meat during crisis times.

### Implications for Programming:

- ❑ Improved accessibility to loans and credit to purchase inputs for middle and poor. More and better quality inputs would assist these groups to produce a better quality tobacco leaf and receive higher prices for their tobacco.
- ❑ More control over marketing tobacco by farmers and improved information on tobacco marketing costs and tobacco auction floor pricing. Small-scale farmers incur marketing costs that are too large relative to the value of their crops. Limited number of middlemen reduces options of fair pricing in tobacco marketing for small farmers.
- ❑ Promotion of diversification in food crops, including cassava sweet potatoes, and pulses. Cassava production has recently been introduced and is well accepted, but scale and spread of introduction is small.
- ❑ Cash income diversification programmes to lessen dependence on tobacco sales as major source of income.
- ❑ Programmes to assist vulnerable groups acquire livestock, such as pigs and chickens. Regular and affordable vaccinations against Newcastle Diseases are needed for the poor and middle.

# Malawi Livelihood Profile

## MZIMBA SELF-SUFFICIENT ZONE

### Zone Description

This zone covers Mzimba District only. Crops and livestock are the basis of the economy in the Mzimba self-sufficient zone. Tobacco provides the single most important source of cash income, and both burley and oriental tobacco are grown. Maize, cassava, sweet potato and groundnuts are the main food crops, supplemented by smaller quantities of pulses and millet. A small food surplus is produced in a 'normal' year, and maize, cassava, groundnuts and soya beans are exported from the zone in most years.

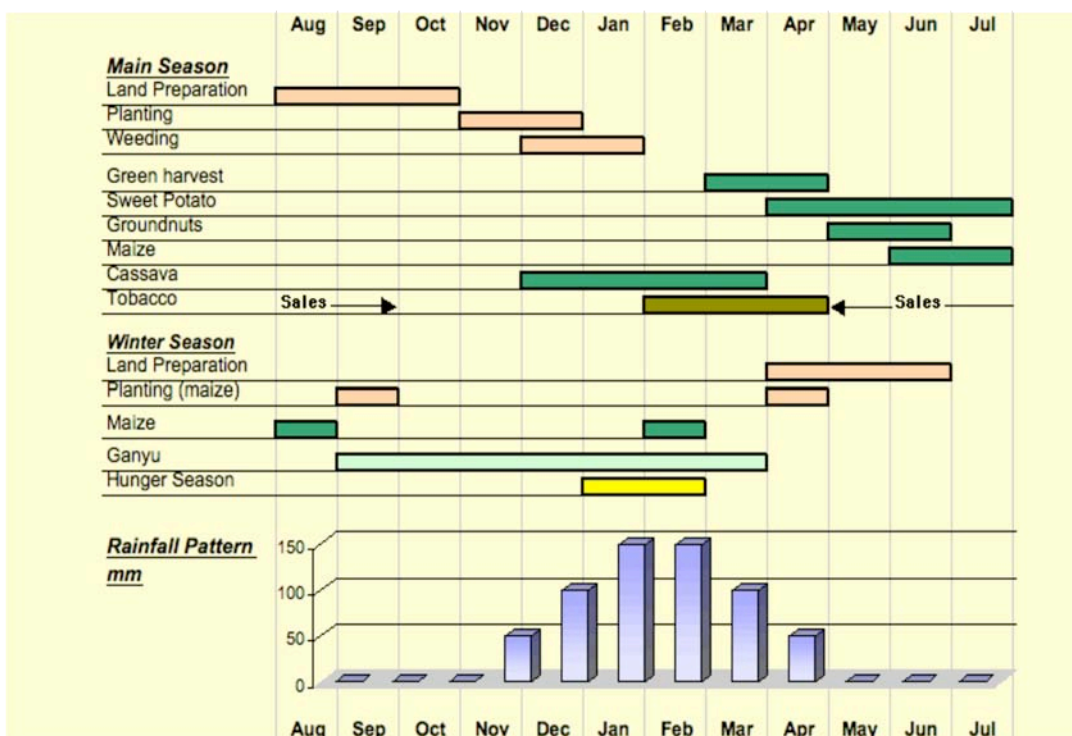
Cattle holdings are relatively high in this zone compared to elsewhere in the country. This is important in three ways; oxen provide a source of draft power for ploughing and for transport (ox-carts), sale of livestock provides a significant source of income, and cattle also provide milk for consumption.

As elsewhere, most of the zone's production is concentrated in the hands of the 'better-off' and - to a lesser extent - the 'middle'. The 'poorest' 30% of households do not own cattle, and their crop production covers no more than 2/3 of their minimum annual consumption requirement. This is more than in some other zones – the explanation being the widespread cultivation of cassava as a secondary crop after maize. 'Poor' households depend for the balance of their food intake on purchase and on in-kind payments for *ganyu*. Cash incomes for the 'poor' are relatively low in the zone, mainly because there are few alternatives for generating cash other than sale of crops and sale of labour.

Quite large number of households - mainly in the 'middle' and 'better-off' groups - have one or more household members or close relatives living and working away from home, either in Southern Africa or elsewhere in Malawi. There does not appear to be a regular pattern of remittance however, with receipts being irregular and unreliable.

### Seasonal Calendar

Harvesting of main season crops (maize, groundnuts, pulses and sweet potatoes) takes place from April to July. For a typical or 'middle' household, these crops last until roughly the end of November (i.e. 8 months). From then until March 'middle' households rely upon a combination of cassava, staple food purchase and in kind payment for casual labour (*ganyu*). Small quantities of maize and vegetables are also grown in *dimba* gardens in low lying wetter areas. Two harvests of maize can be obtained from these gardens, the most important of which is in February, a key pre-harvest month. Although there is an annual hungry season here as elsewhere in the country, the severity of this is

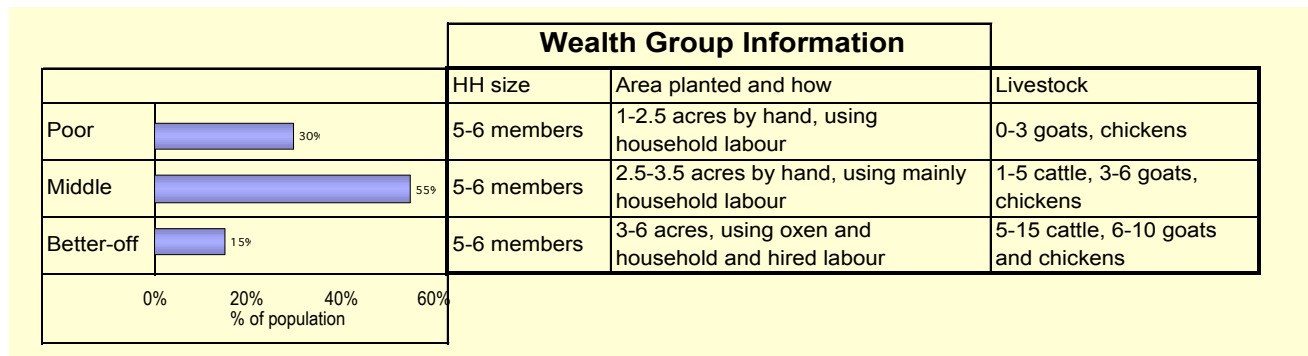


cushioned by two factors: the availability of cassava and the availability of *dimba* maize in February.

## Markets

Burley tobacco is sold to the Mzuzu auction floors, while oriental tobacco is sold locally to the Limba leaf company. Of the food crops sold, maize is sold to the north, to Mzuzu and neighbouring Tanzania, while cassava is sent south, to Kasungu and Lilongwe. Sweet potatoes are produced in reasonable quantities, but there is little external market for these, and prices can be very low (as they were in 2003, at the time of the current baseline assessment). Both summer and winter vegetables are grown and are sold locally and along the main Mzuzu-Kasungu-Lilongwe highway.

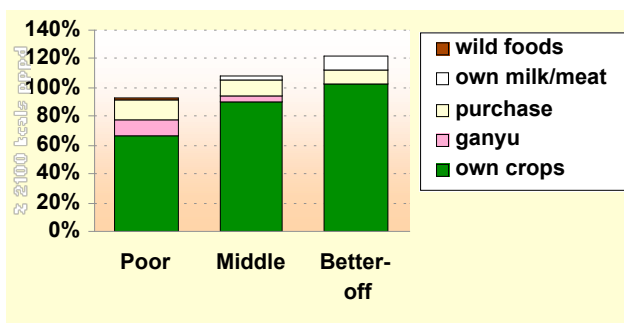
Cattle are exported from the zone to slaughterhouses in Lilongwe, Mzuzu, Nkhata Bay and Rumphu. Small stock are also sold, but mainly to local markets within the zone.



## Wealth Breakdown

In this zone, as elsewhere, there are large differences between the wealth groups in terms of area cultivated, yields obtained and number and types of livestock kept. The 'better-off' cultivate between 2-3 times the area of the 'poor', and therefore harvest 2-3 times more of a range of crops, including groundnuts, cassava and sweet potato. The production difference is even greater for maize and tobacco, mainly because these crops benefit significantly from inputs that the poor cannot afford (including fertiliser and labour), and for which they are unable to obtain credit.

Cattle ownership is widespread in this zone, with most households owning from 1-5 cattle, and the 'better-off' owning between 5-15, of which at least two are likely to be oxen. Ox ploughing is therefore more common in this zone than elsewhere, but is apparently on the decline, since spare parts for ploughs and other equipment have been in short supply since the demise of the system of 'farmers clubs' some years ago.



## Sources of Food

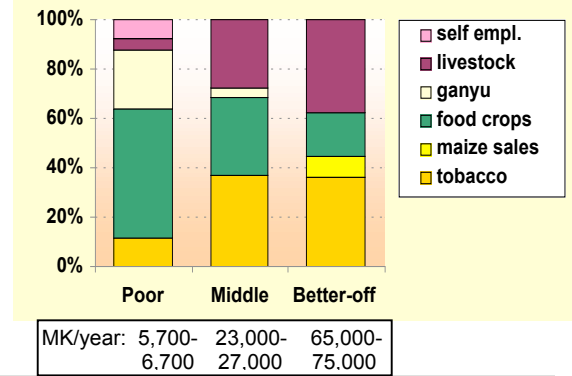
Total food access increases from 'poor' to 'middle' to 'better-off', in line with wealth group differences in crop production and livestock holding.

For all three groups most food comes from own crop production (mainly maize and cassava). Purchase and in-kind payment for *ganyu* are the other major food sources for the 'poor' and the 'middle'. 'Better-off' households also purchase food, but mainly to add variety to their diet (sugar, oil, rice, fish, beans etc.). Consumption of milk is significant for the 'better-off', linked to the number of cattle owned by this group.

## Sources of Cash

The 'poor' in this zone have very low cash incomes. They produce very little tobacco and depend largely upon the sale of crops and *ganyu*. There is little demand locally for firewood, grass or handicrafts, which in other areas contribute significantly to 'poor' incomes. This is due to the remoteness of the zone from any urban centre.

Very roughly, the 'middle' and 'better-off' groups earn a third their income from each of three sources; sale of tobacco, sale of food crops and sale of livestock. They sell the same crops as the 'poor', but in larger quantities. Sale of cattle provides most of the income from livestock sales.



## Hazards

**Chronic/Frequent hazards:** As in many other areas of the country, dry spells or excessive rainfall and waterlogging are the most common causes of reduced crop production in the zone. One or the other of these affects the zone in most years. The dry spells have a huge impact on crop production when they occur at the critical stage of crop development such as tasseling in maize. Crop diseases and pests also affect the zone from time to time, and district officers mentioned Grey leaf spot and Bean beetle as the most significant recent problems in this respect.

**Periodic Hazard:** Severe crop failure occurs when there is a prolonged dry spell (drought). Cattle play an important role in the food economy of this zone; they are used for ploughing, they provide milk and they are sold to generate cash income. Diseases affecting cattle, such as foot-and-mouth, are a cause for concern in the area.

## Response Strategies

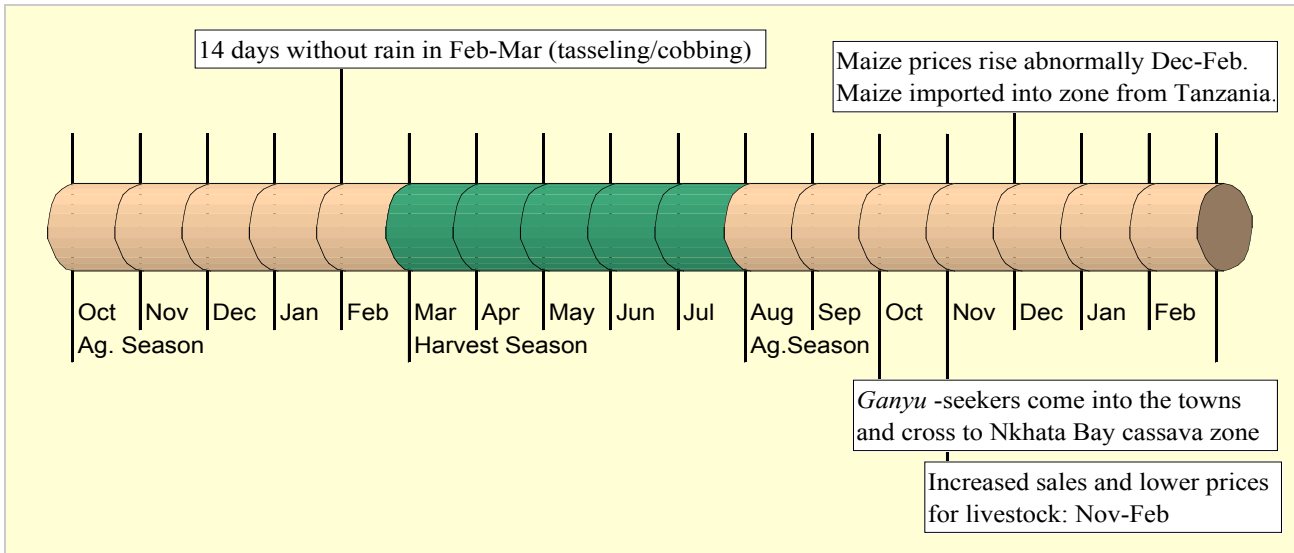
Households respond to shocks in two ways; they expand existing strategies and when the situation is severe they turn to a number of distress strategies. The table below lists some of the strategies household were found to employ.

Expansion of Existing Strategies	Distress Strategies
<p><u>Increased consumption of cassava:</u> Cassava is an important reserve crop grown by all three wealth groups in the zone, and consumption of cassava is increased when other crops fail.</p> <p><u>Livestock sales:</u> An important strategy for the 'middle' and 'better-off', given the level of cattle holdings in the zone.</p> <p><u>Local Ganyu.</u> Expansion of <i>ganyu</i> within the locality is a strategy pursued by both 'poor' and 'middle' households in the zone. Although efforts may be made to find more <i>ganyu</i> the overall effectiveness of the strategy may be limited, since little additional work may be available and labour rates tend to decline in a crisis.</p> <p><u>Food purchase.</u> Food purchases can be expanded using income generated from livestock sales or <i>ganyu</i>, or by switching expenditure on non-food items (e.g. clothes) to staple foods.</p> <p><u>Wild foods:</u> This is not an effective response to food shortage in this zone, since few of the available wild foods provide significant amounts of food energy. Wild fruits are available, but these tend to have relatively low energy content.</p>	<p><u>Distant Ganyu.</u> Migrating to in urban centres and neighbouring Nkhata Bay cassava zone in search of <i>ganyu</i>. The <i>ganyu</i> in Nkhata Bay is usually in exchange of cassava.</p> <p><u>Asset sales:</u> An option for all three wealth groups, but of limited value for 'poor' households given their limited asset holdings. The 'poor' will sell clothes and furniture, while the 'middle' are more likely to sell bicycles or radios.</p>

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## Crisis Warning Indicators

The figure below illustrates the main crisis warning indicators for the zone and their timing as the season progresses. A dry spell at a critical stage of the maize growing season (February/March) provides the most significant early indication of crop failure. There may then be few further indications of crisis until the following October, when significant movements from the rural areas in search of *ganyu* are likely to be observed. Market-based indicators (prices, importation of maize, etc.) may not show significant change until as late as November.



## Main Conclusions and Implications for Programming

The zone is highly productive. A lot crops such as maize, cassava, sweet potatoes, millet etc. are grown in the zone with relatively high yields. The zone has also a lot of livestock with cattle playing a crucial role as a source food and income. The area exports cassava to Mzuzu, Kasungu and Lilongwe. Lack of markets for some of the commodities such as sweet potatoes; result in very low prices for the commodity.

[NEEDS MORE]

### Implications for Programming

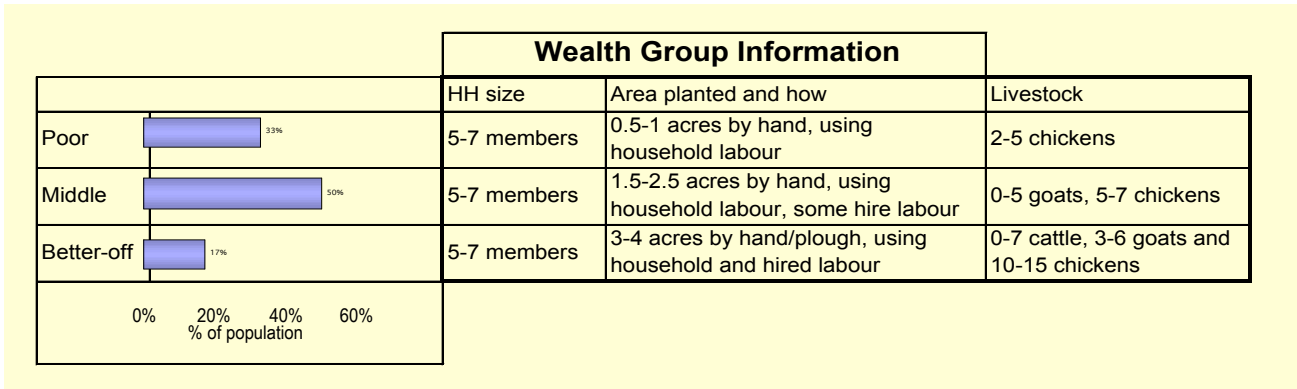
- ❑ The area has high potential for increased production if access to inputs is improved.
- ❑ The households suggested development of farmers clubs as one way of improving access to input credit.
- ❑ All wealth groups for instance, mentioned access to fertilizer as the most important factor that would ensure increased agricultural production.
- ❑ Improved market infrastructure for both crops and animals are essential to ensure that farmers have access to markets and good prices for their commodity which will act as an incentive to production.



## Markets

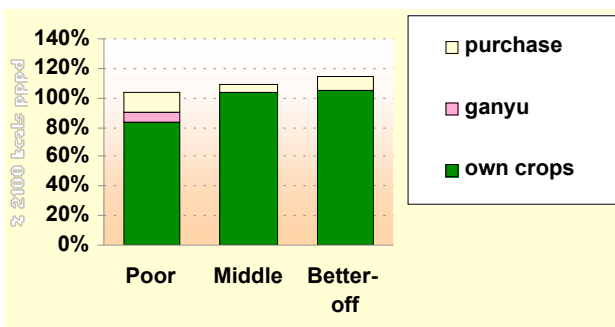
In terms of food crops, cassava is procured and traded locally. Maize is supplied to local markets from outside the zone, including through ADMARC markets. While poultry are bought and sold locally, traders who sell at larger markets in the region buy livestock.

## Wealth Breakdown



Relative to other livelihood zones in Malawi, the Nkhata Bay Cassava zone is characterized by less variability in income and productive assets among the 'poor', 'middle' and 'better-off' groups. The most significant difference between 'poor', 'middle' and 'better-off' households is the amount of land cultivated, with implications for total crop production and sale, and thus dependence on *ganyu*. Livestock and poultry holdings are limited. 'Poor' households consume their chickens on special occasions, but use poultry principally as a reserve for sale in crisis years. 'Middle' households consume and sell chickens in normal years, and sell goats during difficult periods to supplement income. 'Better-off' households consume chickens in normal years, while goats and cattle are reserved for sale during difficult years. 'Poor' households work for 'better-off' and some 'middle' households in normal years, with both food and cash commonly used as payment.

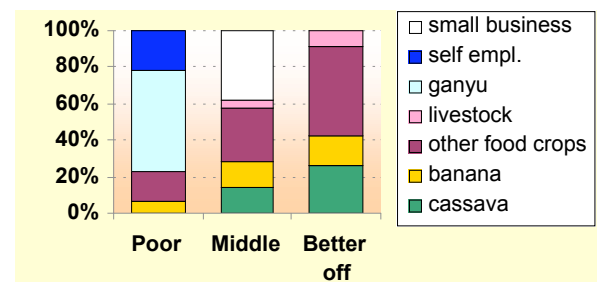
## Sources of Food



Most households obtain over three quarters of their food needs from their own crops. Cassava production accounts for over half of annual food needs for all three groups, with maize, sweet potatoes, rice and bananas comprising the bulk of the rest of the diet. 'Poor' households obtain 10 months of consumption from their own farms, whereas 'middle' and 'better-off' households obtain 12 to 14 months from their own production, including surplus cassava to be left in the field for cuttings and carryover. For the 'poor', the other sources of food are purchase and *ganyu* for food.

## Sources of Cash

Food crop sales are an important source of cash income for all households. The 'poor' sell cassava, groundnuts, banana's and sweet potatoes, while the 'middle' and 'better-off' sell these, plus others including rice and maize. The poor earn more than 20% of their cash from crop sales, whereas crop sales provides over half of cash income for the 'middle' and almost all of cash income for the 'better-off'. Livestock sales are minor for both groups in terms of earnings. *Ganyu* provides over half of cash income for the 'poor,' and the remaining 20% from self-employment (grass collection, firewood). Small business is important for the 'middle', providing more than 40% of total cash income.



MK/year:	9,300-12,200	13,500-15,500	16,700-27,000

## Hazards

**Chronic/frequent hazards:** Flooding in the southern part of the zone is cited as the main recurrent hazard that destroys maize in the plain areas during February and March, though it typically does not affect the main food crop of cassava. Floods that occur earlier in the season delay the planting and harvesting of maize. In the northern part of the zone (Karonga District), the main chronic hazards are dry spells, which pose the greatest risk to maize production during the months of January and February. Other chronic problems cited include wild animals and more specifically monkeys, which raid crops and sometimes cause extensive damage. Theft from within and outside the villages is another chronic problem cited by households.

**Periodic hazards:** Crop pests are a periodic hazard, which affects this zone. Mealy bug destruction of cassava production in this zone is a problem in the zone; however, it is occurring with less frequently and when it is scattered throughout the zone. Armyworms are a periodic hazard that affects maize production.

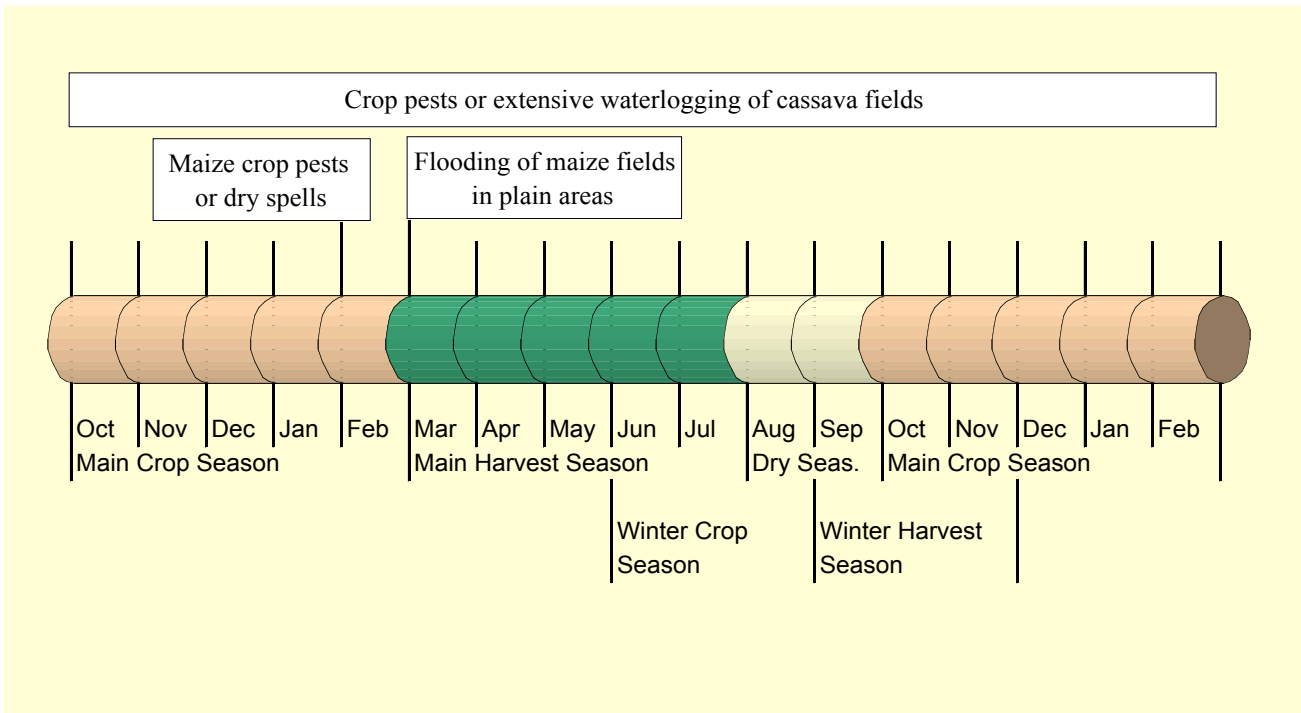
## Response Strategies

Households in this zone are able to withstand larger degrees of drought and maize production failure due to the drought resistance of cassava cultivation. Similarly, households typically do not purchase maize where cassava production is sufficient, allowing for the zone to be less affected by elevated maize market prices than in other livelihood zones in Malawi. As a result of this unique agricultural pattern, in years of maize production failure such as the months following the production year of 2001/2002, local households may benefit from elevated cassava market prices and demand from surrounding areas. Additionally, households may capitalize upon an influx of labour at depressed wage rates from surrounding zones (e.g., Mzimba). In years characterized by crop production failure for local households, several response strategies are commonly practiced. Households expand existing strategies and when the situation is severe they turn to a number of distress strategies.

<u>Expansion of existing strategies</u>	<u>Distress strategies</u>
<p><u>Local ganyu.</u> The ‘poor’ increase involvement with local ganyu, often at a lower wage rate or for food rather than cash.</p> <p><u>Consumption of other crops generally sold.</u> All three wealth groups in a normal year sale a portion of their food crops. A common expansion strategy in a bad year is to reduce or eliminate the sales of food crops. For the poor these crops include maize, sweet potatoes, groundnuts, and banana, while the crops for the middle and ‘better-off’ also includes rice and cassava.</p> <p><u>Increase sales of non-farm production.</u> The poor increase firewood and grass sales. Both the poor and middle may increase fishing activities that could include fishing ganyu or fish mongering (small scale sale of fish).</p> <p><u>Expenditure Switching.</u> For the middle and well-off switching expenditure on non-food items (e.g. clothes) to staple foods is possible.</p> <p><u>Consumption of carry-over cassava production.</u> ‘Middle’ and ‘rich’ households consume cassava intended for use as carryover stock or ganyu payment.</p>	<p><u>Asset sales:</u> An option for all three wealth groups, but of limited value for ‘poor’ households given their limited asset holdings. The ‘poor’ will sell clothes, while the ‘middle’ are more likely to sell bicycles or radios.</p>

## Crisis Warning Indicators

Crisis warning in the Nkhata Bay Cassava zone should focus principally on indicators of cassava production. Indicators of cassava production failure may include evidence of crop pests such as the mealy bug that affects cassava, as well as extensive flooding and water logging of cassava fields that would result in the rotting of the cassava crop. Flooding in plain areas during February and March may signal the destruction of maize, but would be unlikely to significantly affect cassava production. In the northern part of the Zone (southern Karonga), crop pests or dry spells during January and February may reduce maize production.



## Main Conclusions and Implications for Programming

This zone is characterized by a fairly resilient... [Need to complete]

### Implications for Programming:

- ❑ *Poor and middle households express the intention to expand land cultivated if they can pay for labour and get credit.*
- ❑ *Increased livestock and small stock for poor and middle households (for income from sale, and to give manure)*
- ❑ *Farmer's organizations for accessing credit for inputs*

# Malawi Livelihood Profile

## KASUNGU /LILONGWE PLAIN

### Zone Description

The food economy relies almost exclusively on local crop production and – to a very limited extent – local livestock production. A single cash crop – tobacco – is dominant and is grown by a majority of households in the zone. In a ‘normal’ year the zone produces a surplus of food and maize, groundnuts, sweet potatoes, soya beans and paprika are sold out of the zone, mainly to Lilongwe. Almost this entire surplus is generated by the 20% of ‘better-off’ households within the zone. The poorest 25% of households are perpetually in food production deficit and rely on local agricultural labour (*ganyu*) for roughly 6 months of the year. Most of this work is found on the farms of the ‘better-off’ and on the tobacco estates within the zone.

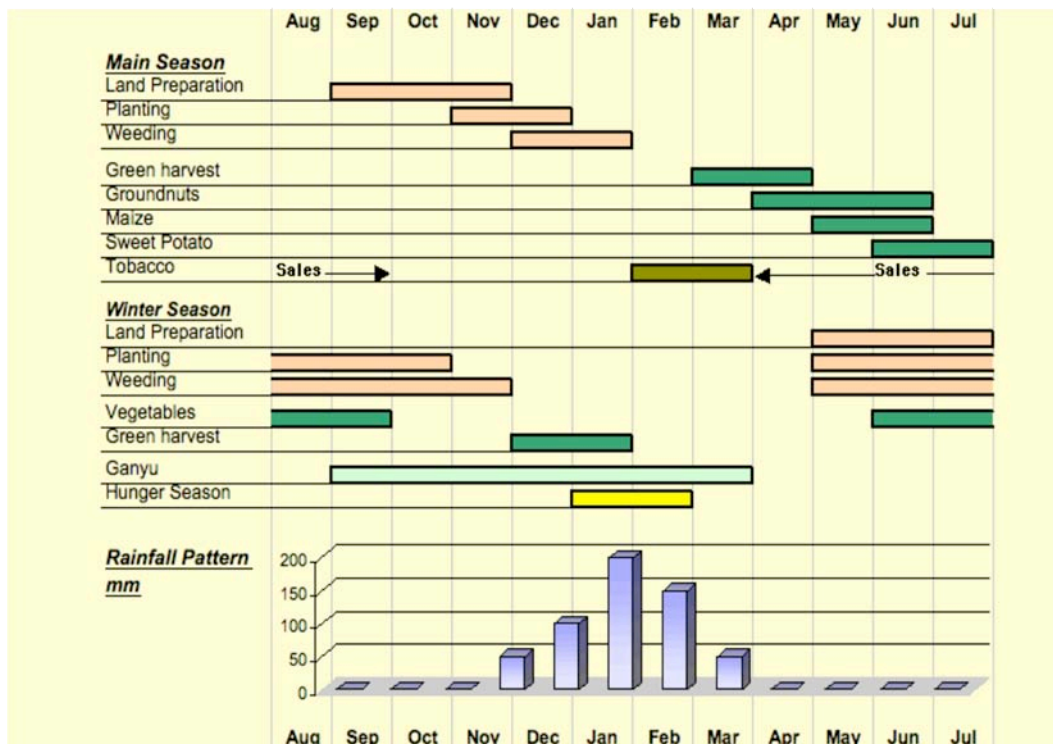
In a year of poor production, food has to be imported into the zone and price becomes the critical factor determining food access – as demonstrated during the 2001-02 food crisis. The poor are especially vulnerable. Income from *ganyu* can fall sharply in a ‘bad’ year and there are few alternative options for accessing food (the poor have few livestock, there is little access to wild foods and few opportunities for labour migration).

Income from tobacco (a relatively drought resistant crop) should in theory reduce the vulnerability of even poor households, helping to maintain food purchasing power in a ‘bad’ year. However, it seems that this income – received in a single lump sum – may be spent on non-food items almost as soon as it is received, rather than being used to build up food stocks or being saved for future food purchases.

Relatively little cassava – an important drought resistant crop – is grown in the zone, although the cultivation of this crop has increased in the wake of the 2001-02 crisis.

### Seasonal Calendar




Main season crops (maize, groundnuts, sweet potatoes and pulses) are harvested between March and July. Winter or *dimba* crops are also cultivated on small plots of low-lying land from May to January. The main *dimba* crops are vegetables (for sale and consumption) and maize, most of which is eaten green in December and January. Tobacco, a major source of income for the zone, is harvested in February/March, and sold from April to September. With the resumption of agricultural activities in September, many poorer households turn to casual agricultural labour or *ganyu* for both food and cash. Food access declines as the season progresses, reaching a low point in January/February, the annual ‘hunger’ season. The situation begins to ease in March, with the harvesting of new season green maize.



## Markets

Most smallholder tobacco from the zone is sold on the Lilongwe auction floors. Groundnuts, sweet potatoes, soya beans and paprika are sold out of the zone to Lilongwe and sometimes Blantyre. The market for minor crops (soya bean and paprika) is volatile because demand and prices are inconsistent. Most livestock sold are destined for the local market, and to a lesser extent other districts in central region, including Lilongwe.

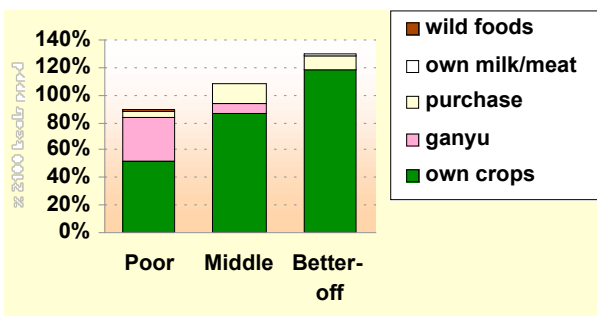
## Wealth Breakdown

		Wealth Group Information		
		HH size	Area planted and how	Livestock
Poor		3-6 members	1.5-2.5 acres by hand, using household labour	0-5 goats, chickens
Middle		3-6 members	2-3 acres by hand, using household labour	0-3 cattle, 0-6 goats, chickens
Better-off		3-6 members	3-5 acres by hand, using household and hired labour	3-10 cattle, 5-10 goats and chickens

0% 20% 40% 60%  
% of population

A typical better-off household in this zone produces roughly five times more than a typical poor household. This applies both for maize (the main food crop) and for tobacco (the main cash crop). Part of the explanation lies in the greater area of land cultivated, but most of the difference results from the 2-3 times higher yields obtained by the better-off compared to the poor. These higher yields are achieved by (a) greater use of inputs (fertiliser mainly) and (b) more and more timely input of labour, especially for weeding, the timing of which is critical. Fertilisers are bought either for cash or on credit (mainly obtained from local credit institutions), while labour (supplied by the poor and to some extent middle households within the zone) is paid for in cash or in kind (with maize, maize flour or, on occasions, maize bran). Access to food (with which to pay for labour) and access to cash and/or credit are therefore the key factors determining wealth within the zone.

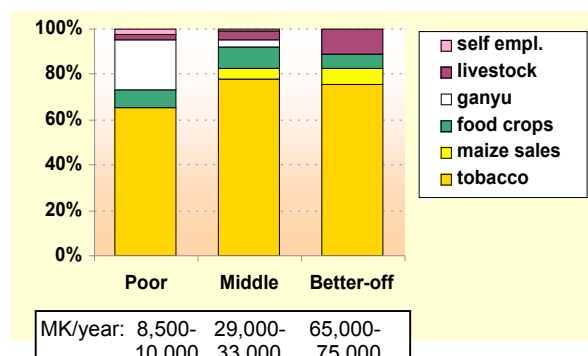
## Sources of Food



Wealth group differences in crop production translate directly into differences in consumption and total food intake. Own crops cover only about 50% of annual needs for the 'poor', compared to 85% for the 'middle' and more than 100% for the 'better-off'. For all three groups, maize makes up over three quarters of own crop consumed, followed by groundnuts, sweet potatoes, and other minor crops. The 'poor' are heavily dependent on food payments from *ganyu* between September-March. They consume less than the minimum 2100 kcals ppd requirement. The 'middle' mainly depend on their own production, turning to *ganyu* and food purchase for 2-3 months of the year (Jan/Feb especially).

## Sources of Cash

Most income, for all three wealth groups, comes from the sale of crops, with total income reflecting the different levels of production. Tobacco is the single most important crop, providing between 65%-85% of income for all three wealth groups. Not only do the better-off produce more tobacco, they also produce a better quality leaf and are paid a higher price for it. This reflects their greater access to credit for the purchase of fertiliser. The sale of food crops and livestock are secondary income sources for the middle and the 'better-off', while *ganyu* provides the second most important source of cash income for the poor.



## Hazards

**Chronic/frequent hazards:** A dry spell of two weeks (sometimes three) in the growing season can cause considerable damage if it comes at a critical time, e.g. maize tasseling. Waterlogging is also experienced in some areas, causing crop-loss. Wash-aways after intense rain are also a localised phenomenon. Livestock theft emerged as a chronic problem from the mid-1990s and has much reduced people's willingness to invest in livestock.

**Periodic hazards:** serious drought strikes about one year in ten; major infestations of army-worm on maize also appear about one year in ten; wild-fire over significant areas, affecting in particular tobacco, occur two to four years in ten.

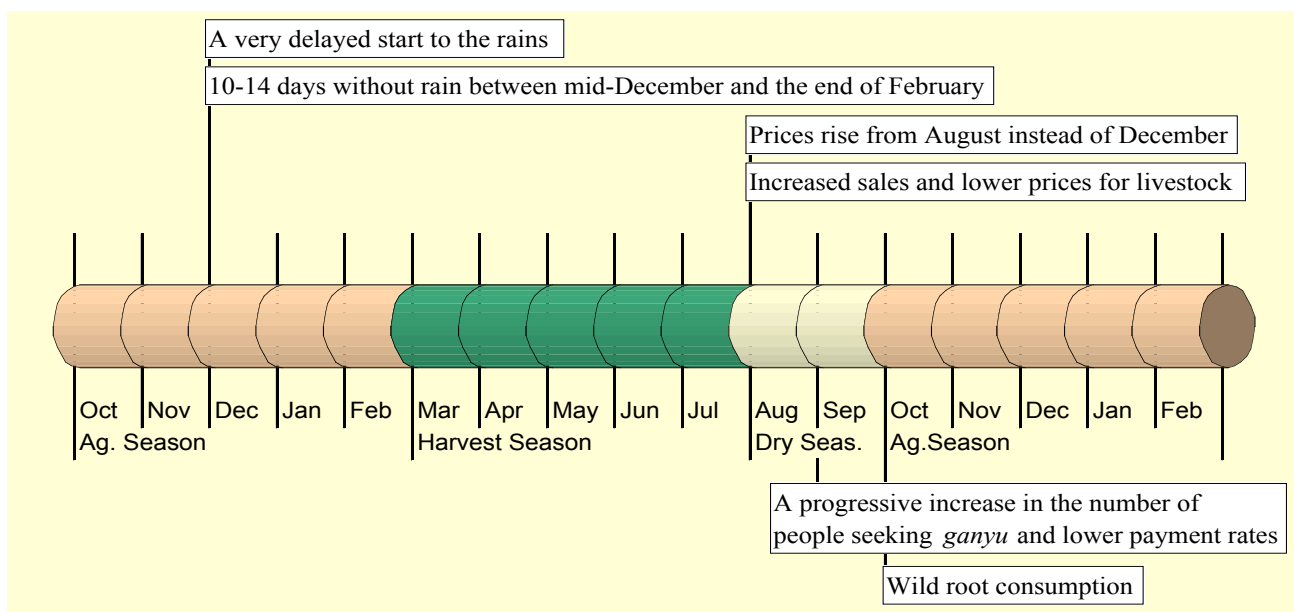
## Response Strategies

When crop production fails, households respond in two ways; they expand existing strategies and, when the situation is exceptionally severe, they turn to a limited number of distress strategies. The table below lists some of the strategies adopted by households in this zone. One other response to the 2001-02 food crisis also deserves mention. This is that many households have since increased the cultivation of cassava, sweet potatoes and *dimba* crops, primarily as an insurance measure in the event of future food shortages.

<b>Expansion of existing strategies</b>	<b><u>Distress strategies</u></b>
<p><u>Livestock sales:</u> An option for all three wealth groups, but yielding limited returns for the 'poor' since holdings are low.</p> <p><u>Local ganyu.</u> Both 'poor' and 'middle' groups attempt to expand local <i>ganyu</i> in a crisis, but only limited additional work tends to be available. Labour rates may also decline, and <i>ganyu</i> income may actually fall.</p> <p><u>Distant ganyu.</u> Limited amounts of additional work are found in urban areas, in neighbouring districts and – for border areas – in Zambia.</p> <p><u>Food purchase.</u> Food purchases can be expanded using income generated from livestock sales or <i>ganyu</i>, or by switching expenditure on non-food items (e.g. clothes) to staple foods.</p> <p><u>Consumption of maize bran.</u> This common 'hunger' season strategy is intensified in crisis years, when even <i>ganyu</i> may be paid in maize bran rather than grain.</p>	<p><u>Consumption of wild roots:</u> In general, the availability of wild foods is limited. However, at times of severe food shortage 'poor' and 'middle' households will collect wild roots, such as <i>mpama</i>.</p> <p><u>Consumption of cooked mangoes:</u> Mangoes are consumed every year, but the replacement of more traditional staples by cooked mangoes is a sign of distress.</p> <p><u>Asset sales:</u> An option for all three wealth groups, but of limited value for 'poor' households given their limited asset holdings. The 'poor' will sell clothes and furniture, while the 'middle' are more likely to sell bicycles or radios.</p>

## Crisis Warning Indicators

The figure illustrates the main crisis warning indicators for the zone and their timing as the season progresses. Abnormal rainfall patterns provide the earliest indication of crop failure from December onwards. Depending upon the extent of crop failure, there may be few further indications of crisis until the available crop production begins to run out, typically from August onwards. At this point, maize prices can be expected to increase and various strategies intensified, including sale of livestock and the search for additional *ganyu*.



## Main Conclusions and Implications for Programming

The zone is highly dependent on own crop production both for food and cash. Tobacco is the dominant cash crop and the main source of income for people in this zone. Dry spells and droughts have serious implications on the livelihoods of people in this season because of their heavy dependence on crop production. The farmers in this zone depend very much on oxcarts for transportation of their agricultural commodities. However livestock holdings in this zone are relatively small.

### Implications for Programming

- *The area is highly dependent on tobacco and the antismoking lobby threatens the livelihoods of the majority of farmers in this zone. This is because tobacco is the main cash crop. In this regard it is imperative to promote other high value cash crops. There is need to improve farmers' access to inputs especially fertilizer in order to increase the production of tobacco, maize and other crops.*

# Malawi Livelihood Profile

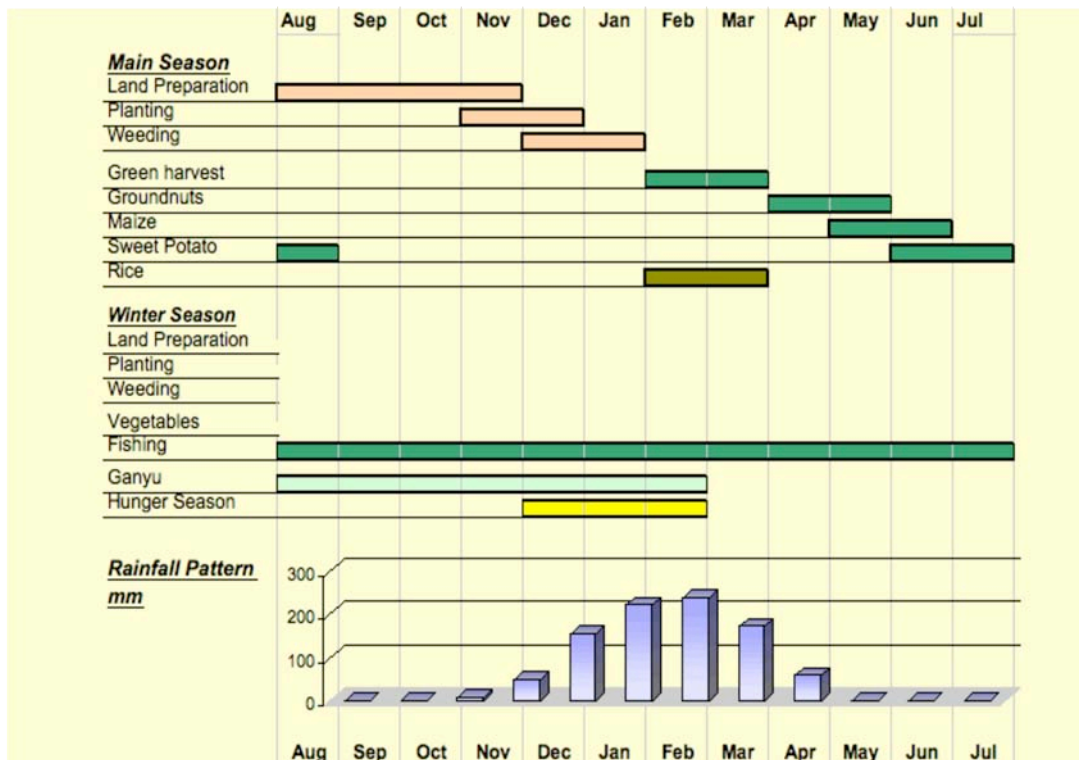
## SOUTHERN LAKESHORE

### Zone Description

The Southern Lakeshore zone stretches from the central district of Nkhonkhotakota to the northeastern part of Mangochi District. It covers the Districts of Nkhonkhotakota, Salima and Mangochi. The zone is a thin strip of land extending approximately five kilometres inland from Lake Malawi. The Southern Lakeshore zone is the principal fishing area of Malawi, as the relatively shallow depths of adjacent Lake Malawi enable even small-scale fishermen to participate in fishing activities. 'Poor' households earn income from providing casual fishing labour for others, while the 'middle' and 'better-off' earn income from fish sales. The zone receives annual rainfall levels of 700-1000 mm, and the zone is a grain deficit area. Maize, rice, sweet potatoes, groundnuts and sorghum are the main crops grown.

### Seasonal Calendar

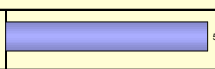
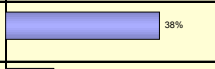
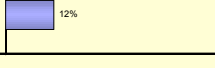
Most agricultural activities reach a peak between the months of November and April. Food insecurity increases during the months of December, January and February for 'poor' households. Flooding tends to occur at a time when food insecurity is elevated, and when involvement in casual agricultural employment is highest. As a result, poor households tend to reduce their time spent on their own agricultural plots at the most critical time in the agricultural calendar, due to their need for food for short-term survival needs. Although fishing is undertaken throughout the year, it reaches its height in June, July and August, and consequently these months represent the peak fishing employment period for the 'poor'.



## Markets

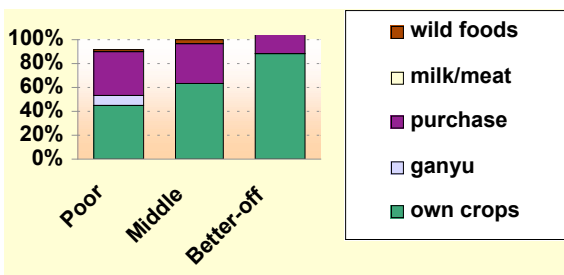
The Southern Lakeshore zone is a grain deficit area, which gives rise to active trade resulting in the import of staple grain through both ADMARC and private traders in the zone. The main commodity exported from the zone is fish. The principal destinations for this commodity are Lilongwe, Blantyre and Zomba. The main problem associated with produce markets is poor road networks, a problem exacerbated during the rainy season. Price differentials for commodities are experienced during the 'hunger period' of January and February, when grain prices tend to increase while livestock prices are depressed because of high demand for staple grain. *Ganyu* (on-farm and off-farm) becomes scarce because of excess demand. Fishing *ganyu* also becomes scarce, as it is banned during this period.

## Wealth Breakdown

		Wealth Group Information		
		HH size	Area planted	Livestock
Poor		5-7 members	1-1.5 acres	0-2 goats, 5-10 chickens
Middle		5-7 members	1.75-5 acres	2-5 goats, 8-10 chickens
Better-off		5-7 members	2-5 acres	2-5 goats, 10-15 chickens
0% 20% 40% 60% % of population				

The main determinants of wealth in this zone include the types of assets (including livestock) owned by the household, the size of land cultivated and access to agricultural inputs. Poor households cultivate small parcels of land due to limitations on access to labour. Because they are not able to hire labour and much of their time is utilized providing *ganyu* to 'better-off' households, they are unable to produce sufficient food to meet household food requirements. In contrast to the 'poor', 'middle' and 'better-off' households generate income through the sustainable sale of livestock.

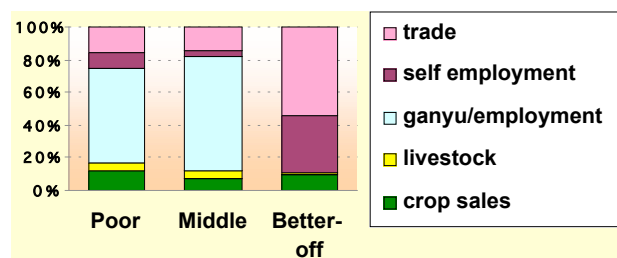
## Sources of Food



For all three groups most food comes from own crop production, of which about 60-70% of this is maize. Rice accounts for 10-17% of own crop production consumed for all three groups, followed by other minor crops (e.g. groundnuts, sweet potatoes, cassava). Purchases are significant for the 'poor' and 'middle' (e.g. maize, rice, fish). The 'better off' also purchase, but mainly to add variety to their diet (e.g. sugar, oil, fish, beans, etc.) The 'poor' suffer a food deficit of 0-10% of food requirements in normal years, due to inadequate purchasing power.

## Sources of Cash

The largest source of income for the 'poor' and 'middle' is employment in fishing *ganyu* or formal employment at the numerous holiday resorts along the lake. They supplement this cash income with crop sales (e.g. sweet potatoes, maize, groundnuts, cassava), self-employment (grass and firewood sales) and petty trade. The 'better off' earn most of their income from trade and self-employment, which consists mainly of fishing and fish trading. The 'better-off' also earn some cash income from the sale of crops and mainly consists of earnings from maize and rice sales.



Mk/Yr	15,000-25,000	70,000-80,000	90,000-130,000

## Hazards

**Chronic Hazards:** Floods are the main recurrent hazard in this zone, attributable to the numerous streams and rivers that flow through this low-lying zone into Lake Malawi. Flooding results in food insecurity through loss of crops and population displacement. Road infrastructure may also be destroyed, hampering transport of merchandise and accessing of markets.

Dry spells at the onset of the rainy season, during the week after planting and during crop maturation are also potential hazards for the zone. Dry spells at the beginning of the cropping season means that farmers have to delay planting, or that those who dry planted may lose their seeds, thereby forcing them to plant twice. Dry spells at the crop maturation stage may curtail production by affecting flowering or cob/pod formation.

Wild animals such as elephants, hippos, monkeys and baboons are reported to pose a significant threat to agricultural production for local households. The threat of destruction discourages agricultural production and necessitates that household members provide continual surveillance to fields.

**Periodic Hazards:** Drought is a periodic hazard in the area and usually occurs once or twice in every 10 years.

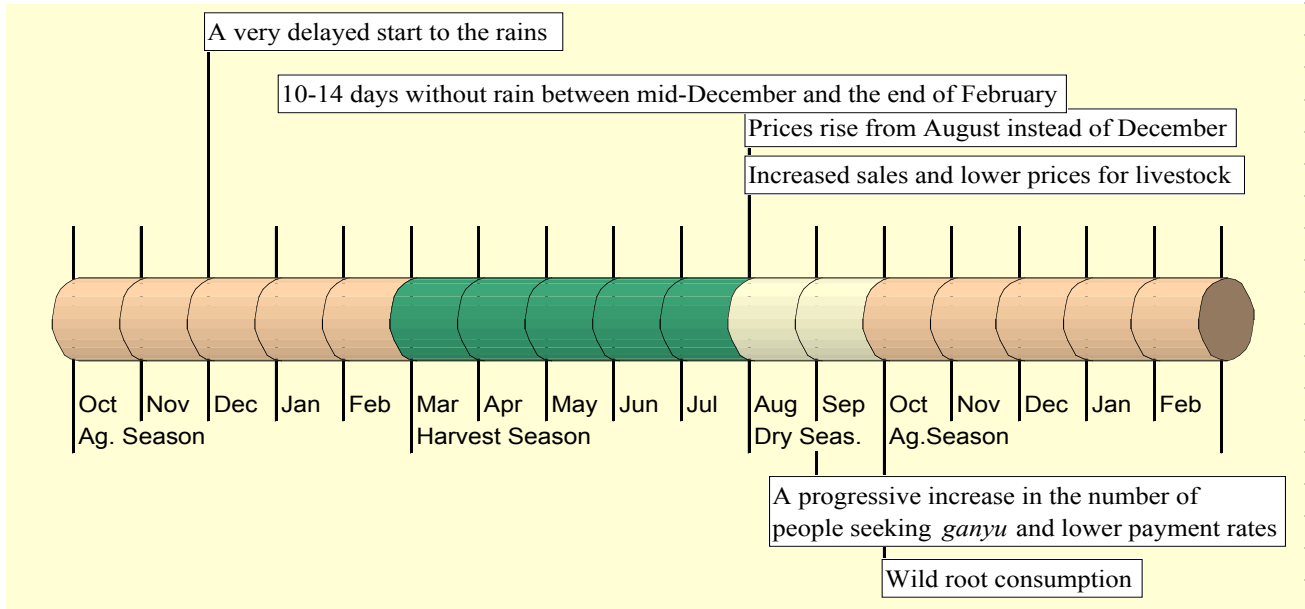
## Response Strategies

When there is a food deficit, people expand their response strategies to cope with the situation. However, when it is a food crisis, more stressful strategies are employed for survival.

Existing Strategies that can be expanded	Distress Strategies
<p><u>Increased ganyu.</u> The poor intensify their sale of labour during the hard times.</p> <p><u>Winter Cropping.</u> Some households plant winter crops especially maize to supplement their main harvest.</p> <p><u>Purchase of maize grain.</u> This is a grain deficit area so most households heavily depend on the market to supplement their food requirements.</p> <p><u>Petty Trading.</u> The ‘better-off’ may also engage in trade by travelling to other zones to purchase commodities for sale within or outside of the Southern Lakeshore zone.</p> <p><u>Renting out Gardens.</u> In some cases, the poor rent out their winter gardens to the ‘middle’ and the ‘better-off’ to get extra income to buy food.</p> <p><u>Increased fishing.</u> This is mostly an option for middle and well off households and is done to obtain more income to purchase food.</p> <p><u>Sending children to work as household labourers.</u> Children are sent to urban areas or other households to work as casual household help, which in most cases means they do not attend school.</p>	<p><u>Migration:</u> In times of a crisis the poor compete with the lower middle households in search for ganyu and they sometimes migrate to other areas in order to find employment.</p> <p><u>Reducing meal quantity and frequency:</u> This mostly by the poor and/or some of the middle households when they are not able to get enough food.</p> <p><u>Selling of household assets:</u> This is done to obtain more income to purchase food. In crisis times some households may sell all their productive assets to be able to survive.</p> <p><u>Eating less preferred foods:</u> In extreme cases, people eat foods, which they do not normally consume, e.g. maize bran, wild foods and sometimes they eat only vegetables (chisinkho) as a main meal.</p>

## Crisis Warning Indicators

Flooding is mainly experienced during or around the months of January, February and early March. The progression of impending crisis would typically include: long duration downpours; water-logging in crop fields; overflowing of streams and rivers; collapsing of houses; washing away of crops, livestock and homes; and finally, migration to high ground.



## Main Conclusions and Implications for Programming

People in this zone are heavily dependent on fishing either by being fishermen, or employed by fishermen, or by trading in fish. They also do some farming and for the well off they employ other people to do the agricultural activities for them. Many are dependent on the market to buy staple food and are thus vulnerable to price fluctuations that arise due to forces of supply and demand. Dwindling fish populations pose a big potential hazard to this zone, as those solely dependent on fishing would find it difficult to cope.

### Implications for Programming:

- ❑ *The government and need to introduce/promote sustainable fishing methods in order to save the major source of people's livelihoods in the zone.*
- ❑ *There is need to promote irrigation farming in the area for the households to be able to supplement their main harvest with winter crops.*