World Food Programme

Malawi

Assessment of appropriateness and feasibility of cash response options

June 2007

Special Initiative for Cash and Voucher Programming - SICVP


Malawi
Administrative districts
Malawi 2002
As of 2002, Malawi had 27 administrative districts in three regions. With the exception of Likoma, all are named for the district's administrative headquarters or boma. Likoma district consists of the group of islands in the Mozambican waters of Lake Malawi, administered by Malawi, and is named for the largest island in the group. The four urban centers of Malawi - Lilongwe, Mzuzu, Blantyre, and Zomba - are not separate districts, but are treated separately in most of the maps in this atlas where district-level information is presented.
Tanzania
Chitipa
Karonga
Rumphi
Northern Region
Mzuzu city
Nkhata Bay
Mzimba
Likoma
Mozambique
Lake Malawi
Zambia
Kasungu
Nkhota-kota
Ntchisi
Dowa
Mchinji
Salima
Lilongwe city
Central Region
Lilongwe
Dedza
Mangochi
Lake Malombe
Lake Chiuta
Mozambique
Ntcheu
Machinga
Balaka
Southern Region
Lake Chilwa
Zomba municipality
Zomba
Mwanza
Blantyre
Phalombe
Blantyre city
Chirad-zulu
Mulanje
Thyolo
Chikwawa
Shire River
Nsanje
International boundary
Regional boundary
District boundary
Boma - district administrative headquarters
Tanzania
Malawi
Zambia
Mozambique
0 20 40 60 80 100 Kilometers

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Acknowledgements

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Executive Summary

Beginning 2007, the Malawi Country Office (CO) engaged in the *Special Initiative for Cash and Voucher Programming* (SICVP) in Southern Africa and decided to look into the possibility of implementing a cash pilot. The idea was to explore the use of cash as an alternative or complement to food under the Asset creation component of the forthcoming three year Protracted Relief and Recovery Operation (PRRO 2008-2010). The assessment took place in May/June during the harvest period and comprised secondary data review as well as primary data collection through a household and a trader survey and community focus group disucssions. It focussed on three districts in the South (Chikwawa, Phalombe and Machinga) with the objectives to:

(a) Assess the appropriateness and feasibility of cash interventions as a complement or an alternative to food aid in response to chronic/acute food insecurity in selected districts of the Southern Region;

(b) Recommend specific types of cash responses including objectives, number of beneficiaries, targeting criteria, transfer value and modalities as well as market monitoring indicators.

Cash transfers are only appropriate where people are food insecure, but at the same time adequate food is available and affordable through markets. Where both food insecurity and market failure are a problem, food is the best option. To identify suitable project areas for a cash pilot, levels of food insecurity and market functioning were compared. In addition, factors such as households' preferences, security, intra households' decision making and cash delivery mechanism were considered. Since the possible cash intervention was envisaged for 2008, the analysis of the current food security situation in the three districts was done with an attempt to predict how the situation will evolve over the coming 12 months, until the next harvest season in April/May 2008

Malawi is a small land-locked country, with one of the highest population densities in Sub-Saharan Africa, and one of the lowest per capita income levels in the world. Poverty in Malawi is caused by a combination of structural factors and recurrent shocks, and it is pervasive. More than half of the 13.1 million people live below the poverty line and about one fifth lives in ultra-poverty. The highest concentration of poor households is in the South, where as many as one third of the rural population are ultra-poor.

The vast majority of rural households in Malawi can be labelled farming households, as they own at least a small plot of land from which they derive food and income. However, as landholdings are small and productivity is low, most households experience food gaps for several months every year and are forced to find additional sources of income. *Ganyu* (casual labour) provides the main supplementary income for more than two thirds of poor rural households, although it is rather a survival option rather than an accumulation strategy.

On a nation wide scale, Malawi produced sufficient cereals in 2007 to meet domestic demand. According to the Ministry of Agriculture and Food Security overall maize production was **3.44 million MT**, indicating a surplus of 1.2 million MT. This historic record is attributed to favorable weather conditions and increased use of agricultural inputs due to the government input subsidy program. Compared to its Southern African neighbors, Malawi has the largest surpluses and the lowest maize price with around US$100/MT. In most southern African countries this year's harvest was only marginal. As a result, regional trade pattern are changing with Malawi emerging as a main exporter of cereals. Yet, even with half a million MT of maize planned to be exported, Malawi has still at least another half million MT surpluses. In view of the government reluctance to allow free trade beyond the negotiated export agreements, there is a great likelihood that average maize prices will remain reasonably low in this season, despite upward pressure from international prices

The main producers of maize – Malawi's most important staple food - are subsistence farmers who view maize not as a commercial crop but primarily as a staple crop. Hence after a good maize harvest, trading activities recede, and only when households run out of stocks demand starts surging. While volumes traded are low, the costs and risks of trading are high. This requires high risk premiums and margins to make it profitable to engage in markets, but these high margins themselves depress demand, and can easily result in a "low level equilibrium trap" or market failure (Dorward *et al.*, 2002) in areas where purchasing power is low.

Markets, when functioning efficiently, help move food from surplus to deficit areas. There are several active food markets across Malawi, where large commercial and small-scale traders are involved in in-country and cross-border food trade. They are usually well connected by road, are either in or close to urban areas and are reasonably well integrated as indicated by co-movements of prices in these locations. There is also convergence with prices in bordering areas of Mozambique, signalling the importance of cross border trade in the south. Yet, large parts of the country are not served by these markets. Especially the population in more remote rural areas rely on small daily and weekly markets or mobile traders, which are only loosely connected to the bigger trading centres. In these areas, the maize market is characterised by strong seasonality and high transaction costs due to low volumes, inefficient communication systems and poor road infrastructure.

Overall food availability in the surveyed districts in the South is mixed and not as bright as the national bumper harvest would imply. Due to floods and erratic rains food production - compared to last year - was clearly worse in Chikwawa, mixed in Machinga and good in Phalombe. In Chikwawa, the impact of adverse weather was most pronounced. Floods, early on in the cropping season caused one third of households to cultivate less land, and resulted in reduced yields for 80 percent of households

Own production is the most important source of food. Almost half of all calories consumed in Malawi are home-produced. The share varies depending on access to agricultural land, and consequently, households with smaller landholdings are more dependent on cash income to purchase food, especially during lean season. A vast majority of the rural population in the South depends on food purchases. In the surveyed districts, 70 percent of households purchase cereals for own consumption at least at one point in time during the year, while only 22 percent sell cereals from own production. Households who sell are likely to have a marketable surplus, although some farmers are forced to sell part of their harvest because of liquidity constraints, and will re-enter the market at a later stage as buyers. It is mostly the poor who sell cheap right after the harvest and buy expensive during lean season. Although poor households are the least able to absorb the costs, they remain the most exposed to seasonal price fluctuations.

In May, average maize prices were highest in Chikwawa (19 MK/kg) compared to 11-12 MK/kg in the other 2 districts. Also demand is highest in Chikwawa, where many households started purchasing food already in May. The compromised harvest is obviously a key factor that pushes up the prices, as confirmed by traders in the districts. But there are more structural factors behind, namely the hight transaction costs that traders face in chronically poor areas due to low trade volumes and high transport costs. It is more profitable for them to go to Blantyre, a major urban center close to Chikwawa, where traders can easily sell in bulk to a large number of households without having to move around.

To identify areas in the three districts where markets are working sufficiently well, a market index was created using proxy indicators for market reliability, distortion, physical access and integration. Later on, functioning markets and food insecure areas were compared to further narrow down possible project areas for a cash intervention.

It is difficult to distinguish between transitory and chronic food insecurity, which are intrinsically linked in a vicious cycle: Recurrent shocks lead to a decline in consumption and assets, thereby reducing productivity and income, making households even more vulnerable to the next shock.

It is estimated that 340,000 people or 68,000 households in the three districts are severely food insecure. The majority (56 percent) lives in Chikwawa, 26 percent are in Machinga and around 17 percent in Phalombe. Severely food insecure households are characterised by small landholdings (< 2 acres) and undiversified livelihoods. Their main income source, *ganyu* or food crop production, contributes 78 percent to their total income. They own only few assets, live further away from markets, but are at the same time highly dependent on markets, especially cereal markets. The situations is acute for around 60 percent of them, in a sense that they have been severely affected by floods and are worse off than last year. Yet, they were most likely chronically food insecure before and the shock just pushed them further into destitution. The remaining 40 percent of severely food insecure households were not more than usually affected by shocks, but they are equally in need, thus their situation can be considered chronic. Another 350,000 people or 70,200 households are moderately food insecure. Their livelihoods are also at risk, though to a lesser extent.

The food security situation is likely to deteriorate over the coming months in view of households' declining food stocks and limited coping capacities. The considerable share of households in the three districts, who were consuming very inadequate diets already in May (15 percent) is worrying, especially if these household avail of only few income sources and assets. Selling assets, either livestock or household items, is not a real coping option for severely food insecure households whose asset base is already thin. During last lean season only 10 percent sold or bartered livestock. Borrowing usually implies paying back double the amount right after the harvest, thus rather less cash stripped households resort to it. Winter cropping and *ganyu* are possible sources of food, and especially in the last quarter of the year. Yet, only 20 percent of the severely food insecure households are able to grow winter crops and the quantities are usually not large enough to cover significant food gaps.

Both the chronically and acutely food insecure households require assistance to protect their livelihoods and to ensure adequate food consumption from August/September 2007 onwards at least until the next harvest in April 2008. In addition, their resilience to shocks needs to be strengthened and livelihoods improved to help them out of the vicious cycle of hunger and shocks, which requires concerted and longer term efforts by the government and its partners, including WFP.

To determine which response options are most appropriate the following factors were considered in addition to market functioning:

- Household preferences for food, cash or a mix of both
- Intra household control over resources and decision making
- Security

The vast majority of communities and households interviewed in all three districts prefer receiving food transfers over cash or a mix of cash and food. Main arguments were that food prices and supplies are unpredictable, food is easier to share with relatives and friends and there is a risk of possible 'misuse' of cash (beer and extra-marital affairs). Yet, these answers have to be read with caution, as many of the fears surrounding cash can be addressed through appropriate project design, such as adjusting the transfer value to the local food prices, or giving cash to women etc. That beneficiary preferences might shift over time has been confirmed by evaluation of other cash schemes (FACT).

Men are traditionally the decision makers on all households related issues except kitchen and food, which is the domain of women. As seen in previous projects, cash given directly to women can strengthen their role in the household and ensure more needs based spending. However, there is a risk that cash might fuel domestic violence when either a couple cannot agree on who should control the resource or men spend the cash on alcohol and women. This risk needs to be monitored closely.

Generally, Malawi is considered a secure country compared to other Southern African countries (UN phase zero). Experiences with previous cash pilot were all positive with regard to the secure handling and delivery of cash to beneficiaries. But to minimize any potential risks, it is considered prudent to avoid transportation of cash from the capital and instead to withdraw cash at the closest local bank branch/ATM machine possible.

The decision on the right resource transfer depends also on a number of considerations related to households' priorities and expenditure pattern: Poor people's access to cash is limited, as even *ganyu* is often paid in kind. Hence, there is a risk that if a full food basket is provided, households either sell parts of the food ration, most likely oil first and then pulses, and compromise on their dietary intake, or reduce their education, health etc. expenses with an equally detrimental and long term impact on their lives.

A mix of food and cash might be more appropriate as it covers the various needs of households, might prevent uneconomic sales of food aid and can help minimising the risk of supply shortages to households. Yet, administrative costs of delivering two different commodities will be high and would thus need very good justification. If only cash is given, households might buy maize, some cassava, vegetables and pulses, but most likely not much oil. These are all mainly assumptions, since so far, there is no sound evidence in Malawi on the differential impact of cash and food on household's dietary intake.

The other option is a temporal sequencing of cash and food, namely food during lean season and cash during and after harvest. Distributing food during lean season makes sense in areas where food prices climb to levels where households' food access is widely compromised, where it becomes cheaper to

distribute food than cash, without having a negative impact on markets, or, in locations where staple food items are just not available anymore.

While food insecurity is more evenly spread all over the three districts, a combination of food insecurity and - at least moderately - functioning markets, can be found in areas close to main markets. For the cash pilot, also the proximity of a Bank branch has been taken into account, as the direct delivery through banks emerged as the most viable option. Due to a corporate US$ 3 million upper ceiling for any cash pilot, it was agreed to focus only on selected Traditional Authorities (TAs) in a maximum of 2 districts. In Chikwawa, the food security needs are largest, while in Machinga market and financial infrastructure is reasonable well developed. Phalombe was left out eventually, as the food security situation looks best there, while the financial infrastructure is worst. The identified cash intervention areas are close to major trading centres and the risk of market failure or steep maize price increases is considered very low.

Below is a summary of the 12 assessment recommendations:

1. Implement cash for asset intervention in 7 TAs in Machinga (Liwonde and Chamba) and Chikwawa (Lundu, Maseya, Kasisi, Makhwira and Katunga) covering around 80,000 severely food insecure people or around 16,000 households, who are not labour constrained.
2. Provide emergency cash transfers to the roughly 5,000 labour constraint households (20,000 individuals) in flood affected communities targeted for the Cash pilot.
3. Review and further fine tune the current targeting criteria used in FFW schemes, and apply then the same criteria for the pilot cash scheme.
4. Cover the remaining needs of food insecure households through other interventions.
5. Set aside a contingency in the budget to cover an increase in maize price beyond the expected maximum of 30 MK/kg in the identified areas.
6. The cash transfer amount should be the equivalent of a normal food for work ration, calculated on the basis of local market prices and adjusted by household size. The average ratio envisaged under the new PRRO covers roughly 1,400 kcal.
7. Establish bank accounts for each beneficiary household, if possible in the name of women. Deliver cash through bank branches or ‘Farmers World’ outlets (push approach).
8. Establish partnerships with other agencies and create synergies of activities at field level,
9. When selecting the final project area (communities), review the market and food security situation in the selected 6 TAs.
10. Set up a simple monthly market monitoring system, which should be part of WFP’s general monitoring system.
11. Incorporate market indicators into WFP’s bi annually Community Household Survey (CHS) to identify locations within WFP PRRO intervention area where cash may be more appropriate than food.
12. Conduct a baseline survey in October/November prior to the start of the project and a follow-up survey in May.

1. Introduction

Malawi has seen a considerable number of cash schemes since beginning of 2000, many of them are very well documented and offer a wealth of lessons learnt. The most recent ones are the Concern Worldwide DECT – Dowa Emergency Cash Transfer project (Dec.'06-April'07) and Government/UNICEF Pilot Social Cash Transfer Scheme in Mchinji district, which is expected to feed into Malawi's longer-term social protection programme. Others are the Oxfam cash transfers programme in Thyolo district (Nov.'05 – March'06); the Concern Worldwide Food and Cash Transfers (FACT) piloted in Dowa, Lilongwe and Nkhotakota districts (Dec.'05-April'06), MASAF cash-for-work programmes and the Dedza Safety Nets Pilot Project implemented by Concern Universal in 2001-02. A good overview and an "attempt to rationalize some of the recent cash pilots" provides the WFP study "WFP and Cash Transfers in Malawi: Issues, Options and Way Forward"[1], November 2006.

WFP's experience with cash in Malawi dates back to 2005. In response to the drought, WFP implemented a cash-for-assets pilot in Nsanje and Chikwawa districts. This project was conceived in a situation where the Ministry of Agriculture planned to expand irrigation schemes for winter cropping, but WFP didn't have sufficient food resources to implement Food for Work activities. The EU jumped in and provided resources for a cash-for-asset intervention. The project was implemented between June and November 2005, benefited 16,600 people at a cost of roughly US$ 0.5 million. An internal evaluation showed that as a result 271 ha land were irrigated and yields increased significantly. However, household food consumption was lower than planned due to the fact that households spent 30-40 percent of their cash transfers on non-food items. In addition, the evaluation stressed the need for building up operational capacities internally and of cooperating partners if further cash schemes are considered. Yet, the major problem during this period was the unexpected steep rise in maize prices that quickly eroded the value of the cash transfer, which was not adjusted to price changes. Not surprisingly, the majority of beneficiaries claimed in retrospect that they would have preferred food.

One lesson learnt from this - as well as from many other cash pilots - is that a decision on whether cash is appropriate or cost-effective has to be judged case-by-case using careful, context-specific analysis, particularly of prices and markets. The lack of such an assessment limits an organisations' ability to predict market failures and prepare for programmatic adjustments such as a switch to food. An ODI evaluation of the Oxfam cash transfer scheme in Thyolo (Nov.'05 – March'06) summarised this as follows: *"Food prices in Malawi rose much more steeply than anticipated, particularly in the last two months of the programme, reducing the amount of food that people were able to access. The price of maize in local markets rose far above the levels planned for by Oxfam, but the project lacked data to see what effect this was actually having on beneficiaries' access to food. No coherent contingency plan was in place to make adjustments for such an event, such as increasing the size of the transfers or moving to food aid."*[2]

At a corporate level, WFP is at an early stage of piloting systematically cash transfer schemes in various settings. An interim directive on how to deal with situations where cash interventions are recommended as well as procedures for approval and implementation of cash pilots has recently been issued; and HQ's Social Protection and Livelihoods Unit (PDPS) envisages formulating a cash policy paper to be submitted to the EB end 2008.

WFP's interest in cash pilots goes beyond analysing the well known comparative advantages of cash and food in emergencies, transitions and development. The two most pertinent questions for the organisation are:

1) What are the best transfer mechanisms in given contexts — i.e., which ones are most cost-effective in lowering food insecurity, hunger, and malnutrition for target populations?
2) Which transfer mechanisms are operationally feasible for given types of organizations?

Answering these questions requires assessing the best **means** to tackle food insecurity as well as **capacities** to deliver cash and food. WFP has a strong interest in building a comprehensive understanding of these technical and operational issues and its own capacities, given the increasing importance of cash transfers, especially as a potential complement to food aid.

[1] Balzer N. and Gentilini U. (November 2006)
[2] Paul Harvey and Kevin Savage (June 2006)

Beginning 2007, the Malawi Country Office (CO) engaged in the new *Special Initiative for Cash and Voucher Programming* (SICVP) in Southern Africa, funded by DFID. In this context and encouraged by donors, the CO decided to look into the possibility of a second cash pilot, with the understanding that any further pilot will be integrated into WFP food aid programmes in Malawi, specifically the forthcoming three year PRRO (2008-2010).[3] The idea was to explore the use of cash as an alternative or complement to food under the Asset creation component of the PRRO. This activity aims at long-term food security by rehabilitating the environment, diversifying rural livelihoods and increasing income opportunities, thereby minimising the risk of livelihood deterioration due to recurrent shocks. FFA activities are planned to take place in six of the most chronically food-insecure districts in Malawi[4]: Chikwawa, Nsanje, Balaka, Machinga, Phalombe and Kasungu.

2. Objectives and Methodology of the Assessment

The assessment took place between 1 and 21 May (see mission schedule below) - including 10 days in the field - and was supported by HQ's Emergency Needs Assessment Service (ODAN) and Economic Analysis Unit (PDPE). The objectives were to:

(a) Assess the appropriateness and feasibility of cash interventions as a complement or an alternative to food aid in response to chronic/acute food insecurity in selected districts of the Southern Region;

(b) Recommend specific types of cash responses including objectives, number of beneficiaries, targeting criteria, transfer value and modalities as well as market monitoring indicators.

On 16 July, after finalising a first draft report, preliminary findings were presented to stakeholders in Malawi. Their feedback was incorporated into the present version of the report and will be considered during project design and implementation.

In addition, the assessment offered the two HQ units an opportunity to try out tools for assessing market as well as cash response options. Lessons learnt from the practical application will feed into new guidance, such as the revised EFSA handbook and the Crop and Food Supply Assessment Missions (CFSAM) guidelines, both to be published end 2007.

Table 1 – Mission schedule

Arrival in Malawi	May 1, 2007
Meetings with stakeholders, review of secondary information, finalisation of draft data collection tools	May 2-4, 2007
Training of enumerators & field testing of market data collection tools	May 5, 2007
Meetings & field testing of data collection tools (hh and community)	May 7, 2007
Finalising tools together with enumerators	May 8, 2007
Data collection in 3 districts	May 9 -18, 2007
Preparation for data analysis, first synthesis of findings, compilation of reports from each team	May 19-20, 2007
Debriefing of Country Office and departure from Malawi	May 21, 2007
Data entry, cleaning and analysis	June 2007
Stakeholder consultation on assessment findings & recommendations	16 July 2007

The Terms of Reference of the assessment were somehow unusual as the objective was to go to an area where a food intervention (PRRO) was already planned, and revisit the means with which the needs

[3] The new PRRO will target roughly 1.4 million chronically food insecure people as well as a limited number of households with transitory food needs as a result of shocks. Contributing to the Government of Malawi's overall social protection goals, WFP with partners will focus on nutrition interventions for children, pregnant and lactating mothers and other malnourished individuals, universal access to HIV and AIDS support, and Food for Assets (FFA).

[4] The six districts for FFA activities were selected based on indicators from the Malawi Vulnerability Assessment Committee, the 2004 DHS and the Integrated Household Survey (HIS 2)

should be addressed. This required a full fledged food security assessment, on the basis of which the most appropriate response options were analysed.

It was agreed that a potential cash pilot would focus only on needs related to protection of lives and livelihoods. Cash was not considered as a meaningful alternative to fortified blended food addressing special nutritional needs of women, children and chronically ill people, which is used in WFP nutrition interventions. Or, as Barrett, Lentz and Maxwell put it in their recent publication[5]: *"In cases where local markets may not be able to supply micronutrients or specially processed foods, distributing food aid to some households – or specific individuals within households, e.g., children and pregnant or lactating women – may be appropriate in meeting needs local commercial markets are ill-suited to satisfy."*

The underlying assumptions of the assessment were that

- the pilot will cover neither all food insecure households in the assessed areas nor all food security needs of selected households;
- food insecure populations and their needs not considered under the pilot project, will be covered by other interventions, implemented by WFP or other agencies.

This approach – though rather uncommon – is justified by the pilot character and the learning objectives of the possible cash transfer project.

Three districts Chikwawa, Phalombe and Machinga were chosen for the assessment based on the following criteria:

- They belong to the project area for Food For Asset Activities under the new PRRO[6]
- They represent four different livelihood zones[7] and differ in terms of road and market infrastructure, which allows drawing conclusions for a wider area.
- In at least parts of the districts, markets are believed to work sufficiently well to implement a potential cash intervention (based on this criterion Nsanje was dropped as a choice); yet these parts have to be identified.

To identify suitable project areas for a cash pilot, levels of food insecurity and market functioning have to be compared, as shown in figure 1. Only where people are food insecure, but at the same time can access markets to purchase food throughout the year, should cash be considered. Where both food insecurity and market failure are a problem, food is the best option.

It is understood that apart from market functioning other factors have to be considered when deciding about the most suitable resource transfer, such as households preferences, security, intra households decision making and control over resources. These issues are covered in chapter 6.

The following topics were analysed on the basis of secondary and primary data:

1. Food availability and markets
2. Household food access and livelihoods
3. Community dynamics, households preferences and security risks
4. Cash delivery mechanisms
5. Macroeconomics, policies and institutional issues
6. Cost-efficiency

Primary data were collected in the three districts through a household survey covering 760 households (one fourth female headed), a market survey covering 48 traders, and 64 semi structured community focus group discussions (see table 2). 4 teams consisting each of 4 enumerators and one team leader visited 64 communities. In addition, the market team (team leader plus 2 enumerators) visited local markets and cross border trading places. The market team, however, managed to interview only 48

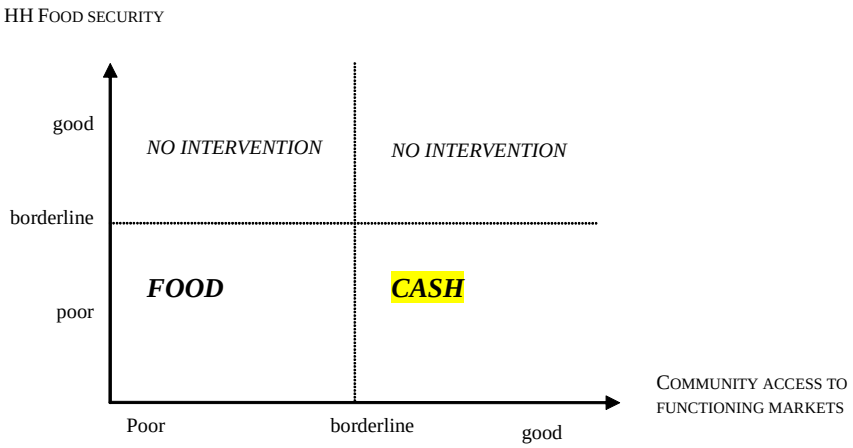
[5] Barrett et al. (May 2007)

[6] Project areas were selected based on VAM analysis and in collaboration with local government institutions. The selected districts have the following vulnerability characteristics: Low median per capita expenditure and very low average annual income from agriculture; Highest proportion of households reporting inadequate food consumption; High poverty rate and ultra-poverty rate; Low rainfall; Flooding and waterlog conditions; Low crop diversification; Deforestation which is associated with soil degradation and reduction in soil fertility; Reliance on rain-fed agriculture, despite having abundant water flows; Infertile, poor sandy soils; and prone to hazards such as floods.

[7] Southern Lakeshore (Machinga), Middle Shire VALLEY (Machinga), Phalombe Plain and Lake Chilwa Basin (Machinga and Phalombe). Lower Shire VALLEY (Chikwawa)

traders (27 males and 21 females) in two districts, Chikwawa and Machinga. In Phalombe trading activities had not yet started and local maize traders were not available for interviews at the time of the survey.

Figure 1 – Food security and market functioning as determinants for response options



The sample universe for the assessment comprised roughly 1.2 million people living in the three selected districts. The number of household interviews was calculated with the aim of being statistically representative at district level, while taking into account logistical constraints (number of vehicles, travel time, etc.). To determine the number of households at district level, PPS was used. No stratification was done

Table 2 – Number of communities, households and traders interviewed

District	Number of TAs	Population	No. of Community Focus Group discussions	No. of households interviewed	Share of total households surveyed	Traders surveyed
Chikwawa	11	463,900	24	289	38 %	39
Phalombe	3	311,300	17	197	25%	-
Machinga	13	440,500	23	274	36%	9
Total	**26**	**1,215,700**	**64**	**760**	**100%**	**48**

With market analysis being a central part of this assessment and in order to capture differences in households' market access in the sample, the 26 Traditional authorities (TA) in the districts were divided into three clusters. Applying PPS the number of households in each cluster was determined. A total of 64 communities were visited, which were randomly selected from a list of villages provided by the National Statistics Office. In each community, 12 households were systematically sampled and the head of household interviewed.

For creating the TA clusters, data from secondary sources was used, such as presence of roads and distance to main markets centres (see table 3). These indicators were believed to be correlated with the extent to which households are connected with local markets. This assumption was based on the Malawi Poverty and Vulnerability Assessment (June 2006) findings: "poverty increases with distance from the *Boma*, and is higher for households which are not near a tarmac road", signalling the influence of more commercial activities.

It was hoped that if the field assessment would validate the scoring, the same approach could be replicated at a wider scale to pre-select areas in Malawi where cash may be an appropriate response to food insecurity. However, while the assessment showed that distance to market centres, cross border trade etc. are important determinants of market functioning, the gaps in secondary information were too great to provide simple geographic targeting criteria. Eventually a more sophisticated market index was created based on primary data collected at household and community level (see chapter 5.4).

Table 3 – Scoring of Traditional Authorities (TAs) based on indicators for market functioning

Scoring of TAs	
Cross border market	3
BOMA	3
TA close to BOMA	2
Main market	2
Main market in neighbouring TA	1
High density of district roads	1
Main road presence	1
Bordering neighbouring country	1
Maximum scores	**14**

Various indices were created during data analysis, e.g. for measuring food consumption, food access, food security, household asset ownership. They are all explained in the annex.

Limitations of the assessment include the following:

- The lack of market baseline data, including coordinates and time of local markets, made it difficult to plan the market survey properly. Moreover, due to the much smaller number of traders interviewed than originally envisaged and the relatively poor quality of data, meso level market analysis was only possible in Chikwawa. Overall, the depth and representativeness of the trader survey analysis is limited.
- For Phalombe, only old administrative boundaries were available, i.e. only two large Traditional Authorities (TA) were geo-referenced, instead of the current six TAs. This influenced the accuracy of the TA clustering approach, and also impeded the search of the field teams for the sampled villages that were still listed under the old TAs.
- Approximately ten percent of the sampled villages could either not be located or were too difficult to reach. These villages were replaced by randomly selected substitute villages in the same TA.

3. Socio-Economic Context

Malawi is a small land-locked country, with one of the highest population densities in Sub-Saharan Africa (112 person/km^2), and one of the lowest per capita income levels in the world. Almost 90 percent of the population of 13.1 million (EIU, April 2007) lives in rural areas. Urbanisation rates in Malawi are unusually low compared with neighbouring countries with the consequence that rural–urban linkages, e.g. in form of migration and remittances, as well as possibilities for livelihood diversification are limited.

Agriculture is the single most important sector of the economy. It employs about 80 per cent of the workforce, accounts for 36 per cent of GDP and contributes over 80 per cent to the total foreign exchange earnings.[8] The sector has a dual structure: A large proportion of the value added to the economy comes from the commercial estate sector[9], which produces mainly tobacco, tea, sugar and coffee, almost entirely for export. The small holder agriculture sector - on the other hand - is characterized by small landholdings, low and stagnant yields, over dependence on rain-fed farming and high vulnerability to weather related shocks, low level of irrigation development, and low uptake of improved farm inputs among others.

Land is scarce in Malawi and - because of the presence of large estates - very unequally distributed. On average, rural households have 1.2 ha of land or 0.33 ha per capita. But land pressure intensifies from north to south, with plot size per capita being highest in the North region (0.43 ha) and lowest in the

[8] World Bank: Malawi (June 2006)
[9] The estate sub-sector encompasses approximately 35,000 farms with a minimum size of 10 hectares that occupy leasehold or freehold land. PVA (2006)

South (0.29 ha). The non-poor rural households have landholdings that are almost twice as large as the ones of poor rural households (0.23 ha per capita).[10]

Poverty is pervasive in Malawi. According to the Integrated Households Survey 2004/2005 (IHS 2), more than half of the population lives below the poverty line[11] and about one fifth lives in ultra-poverty. The ultra-poor are those households whose total per capita expenditure levels are below the food poverty line, and are thus also considered to be chronically food insecure. As many as 2.9 million Malawians live in such dire poverty that they cannot even afford to meet their minimum food requirements. Poverty is concentrated in the South, where as many as one third of the rural population are ultra-poor, and is higher among[12] female-headed households (59 percent) than male headed (51 percent). A significant proportion of the poor is labour constraint and not able to participate in productive activities. This group comprises mainly the elderly, child-headed households, households with disabled or chronically ill adults.

Poverty in Malawi is caused by a combination of structural factors and recurrent shocks. According to IHS 2, the level of household poverty is mainly determined by: household size[13], education, access to non-farm employment, access to irrigation, proximity to markets and access to tarmac roads. Limited access to inputs such as fertilizers, seeds and credits is generally regarded as a major obstacle to moving out of poverty. Household labour constraints are another contributing factor and quite common in a country with high fertility rates and an HIV/AIDS pandemic (14 percent prevalence rate among adults[14]). The large number of orphans that are taken care of by few able bodied adults, puts significant stress on families.[15] Increasing numbers of households in Malawi are headed by women, children, or the elderly, who are often left caring for orphaned grandchildren. It is generally acknowledged that these labour constraint households are more vulnerable than others, both to chronic poverty and to transitory shocks.

The structural factors mention above limit the households' ability to cope with frequent shocks. Drought/floods and increasing food prices are the most common shocks, and are also perceived to be the most severe ones. Over three-quarters of IHS2 households stated that they had been negatively affected by the rising price of food between 2000 and 2005, while two-thirds experienced lower crop yields due to drought or floods. Illness or injury to a household member and death of family members, in part the impact of the HIV/AIDS epidemic, are other idiosyncratic shocks experienced by many households.

Poverty has not changed significantly over the past decade and economic growth has been almost intangible until recently. In fact, some believe that Malawians are more vulnerable today than in the past because hazards appear to have increased – rainfall and food production are erratic, HIV/AIDS is spreading, markets are weak and prices are volatile – while households' ability to cope has declined – livelihoods are dangerously undiversified, repeated shocks have eroded the assets and savings, informal networks are less willing to provide assistance[16]. Much of the poor economic performance and the stagnating rates of poverty has been the result of the recurrent weather shocks on smallholder agricultural production. The droughts and floods in 2001/2002 and again in 2005 had a lasting impact on the economy and household livelihoods[17], which were compounded by the high volatility of inflation and very high (nominal and real) interest rates.

[10] PVA (2006)

[11] The poverty line in Malawi has been calculated at 16,165 Malawi Kwacha (MK) per person per year, or 44.3 MK per person per day. At the time of the IHS2, MK44.3 was roughly equivalent to US$0.50. The line was calculated by adding the cost of buying a sufficient amount of calories to meet a recommended daily calorie requirement (27.5 MK per person per day) to expected non-food expenditures (16.8 MK per person per day) that are calculated based on the non-food expenditure for those close to the food poverty line.

[12] The respective figures for the poverty line are: 44.2 percent in Central Malawi and 59.7percent in Southern Malawi.

[13] Poor households in Malawi are generally larger than non-poor households. This is especially evident when looking at average household size by income decile —households in the poorest decile are more than twice as large as households in the richest decile (6.3 versus 2.9 members). PVA (2006)

[14] UNAIDS webpage Malawi: Adults aged 15 to 49: HIV prevalence rate 14.1 [6.9 – 21.4]%

[15] Devereux S., Baulch B., Macauslan I., Phiri A., and Sabates R. (2007)

[16] Devereux S., Baulch B., Macauslan I., Phiri A., and Sabates R. (2007)

[17] A study by Hoddinott (2005) demonstrates that 'past shocks continue to affect current levels of consumption' in Malawi – survey data reveal that households that were directly affected by the 2001/2 drought had lower consumption levels and lower asset holdings in 2004. IDS

Yet, there are also signs of improvement: Good rains in 2006 boosted food production significantly and stimulated GDP growth to 8.5 percent. Inflation is on a downward trend since then, and fell recently for the first time since years below the 2 digit figure. Economic growth is forecast to moderate at 3.5 percent in 2007, owing to the tailing off of the agricultural recovery that followed the 2005 drought, but to rise to 4.3 percent in 2008 as uranium production starts at two new mines.[18]

Insubstantial changes in poverty rates hide large movements in and out of poverty. Mainly due to widespread occurrence of shocks about two-thirds of households climbed out or fell into poverty during the past decade. Such shifts also reflect the fact that a quarter of Malawians have income levels within 20 percent points of the poverty line and could be forced into poverty by even slight misfortune.[19] At the household level, factors leading to downward mobility include natural disasters, distress sales of livestock/assets, HIV/AIDS and chronic illnesses, death of spouse (particularly a husband), and alcoholism. Factors leading to upward mobility include possession of livestock or assets, crop diversification, participation in cash cropping, venturing into small-scale businesses, building up savings, having multiple sources of income, and remittances from working children/relatives.[20]

Chronic poverty has a visible impact on nutrition and health and vice versa. A striking 48 percent of children under five are stunted, with 22 percent severely stunted[21]. These numbers are extremely high even for Sub-Saharan Africa, and there has been no significant improvement in the nutritional status of Malawian children for decades. In contrast, levels of wasting are relatively low – 5 per cent in 2004 – indicating that acute malnutrition is a lesser problem than chronic malnutrition. DHS data show that mother's education level is strongly associated with stunting. But also inadequate diets (almost three-quarters have inadequate food intake[22]) and poor health contribute to these high malnutrition levels. 'Diseases of poverty' such as diarrhoea, acute respiratory infections, cholera and malaria are endemic in Malawi, and close the vicious cycle of malnutrition, disease, low productivity, poverty and low food intake.

To address these enormous challenges, the Government of Malawi had developed the **Malawi Growth and Development Strategy** (MGDS 2006-2011), which defines six key priority areas: agriculture and food security; irrigation and water development; transport infrastructure development; energy generation and supply; integrated rural development; and prevention and management of nutrition disorders, and HIV/AIDS. In the area of food security, the strategy aims at turning the agriculture in a more profitable and more export oriented sector, with smallholders shifting towards greater commercialization and international competitiveness. Key objectives include improving agricultural productivity and the functioning of the maize market, diversifying food crop production and increasing income earning opportunities. Moreover, social protection programs should be strengthened and the coordination and management of food aid enhanced.

Over the coming years and in line with the strategic goals, GoM's spending priorities are expected to remain focused on improving food security, particularly through the development of agriculture-related infrastructure such as dams, irrigation schemes and the rural road network. This is expected to tie in with schemes to encourage subsistence farmers to grow cash crops and diversify away from growing mainly maize. Beyond agriculture, economic policy aims at boosting growth through developing the agro-processing, mining and tourism sectors.[23]

In support of the MGDS, Government is formulating a Social Protection Policy and the National Policy on Food and Nutrition Security. While still under negotiation, the Social Protection Policy is likely to address chronic vulnerability and protect people against livelihood collapse when adverse events occur. It will support the formulation of programmes that have a significant and long lasting impact on the ultra poor and vulnerable affected by shocks, protecting and promoting assets and smoothening consumption.

[18] The Economic Intelligence Unit, Malawi Country Report (April 2007)
[19] MGDS
[20] In 2005 the World Bank undertook a worldwide, multi-country study on how households and communities move in and out of poverty. Malawi is one of the case study countries, with the work conducted by the Center for Social Research of the University of Malawi, and IFPRI, in collaboration with World Bank staff.
[21] DHS 2004/2005
[22] Gillespie, S. and Haddad, L. (2004)
[23] The Economic Intelligence Unit, Malawi Country Report (April 2007)

4. Food Availability and Markets

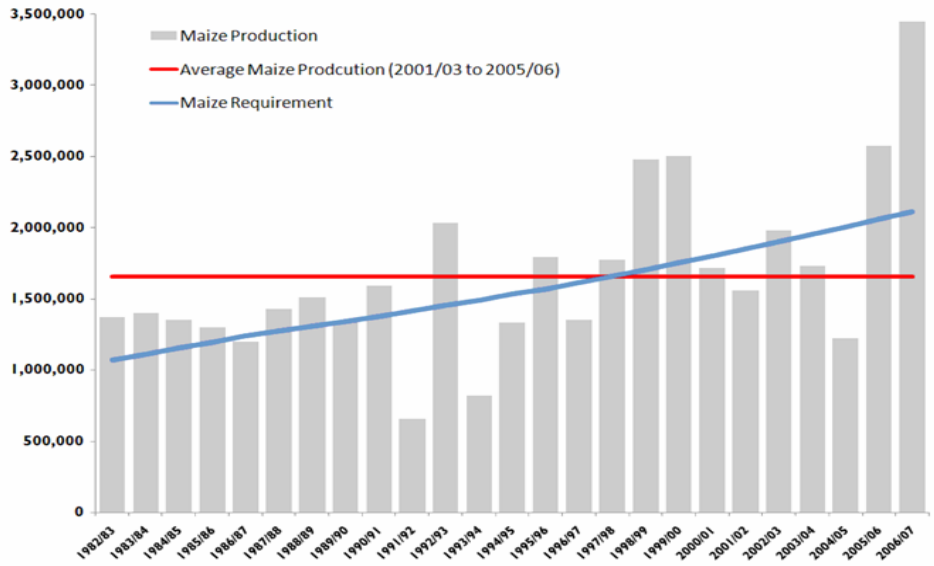
This chapter analyses the overall availability of cereals in Malawi and the functioning of domestic and regional maize markets. The focus is mainly on maize, which is main staple food of Malawians and traded differently than other food and cash crops.

Implementation of cash transfer schemes requires a *steady availability of food* and fairly good *market functioning* during the period of implementation. Thus, an understanding of what the supply situation and the markets responsiveness are and will be during this period is of key importance. The main questions that must be considered include: will food supply be 'stable' enough to meet the demand cushioned by cash transfers, what will be the level and trend of prices, and will this remain stable? Barrett and Maxwell describe the simple logic behind the preconditions for cash interventions: "*An outright deficit of food, whether at the level of a local community or a nation state, requires the food necessary for human consumption to come from somewhere else. When coupled with a market failure, even increased demand stimulated by a cash transfer does not reliably stimulate sufficient commercial inflows of food, but only causes local prices to rise, creating a whole new group of food insecure people. This combination of circumstances (food deficit and market failure) is certainly the "first-best" use of food aid."*[24] Or, in other words, cash is appropriate only when adequate food is available and affordable through markets.

4.1 Cereal Production

The question of whether sufficient cereals are available within the country to meet domestic demand is easy to answer. In June, the Ministry of Agriculture and Food Security released the third round crop estimates figures which put overall maize production at **3.44 million MT**, 34 percent higher than the 2006 harvest, and indicates a surplus of 1.2 million MT (see figure 2). This is an historic record, and is attributed to favorable weather conditions and increased input uptake due to the government input subsidy program. There has been also a significant improvement in food crop diversification, as rice production increased by 20 percent from last year to 111,000 MT, and pulses production reached the highest level ever, with 412,000 MT compared to 345,000 MT in 2006.

Figure 2 – Comparison of maize production and maize requirements, MT



Source: FEWSNET, http://www.fews.net.[25]

[24] Barrett et al. (May 2007)

[25] The graph compares maize production levels for each season against the average maize production for the past five seasons (2001/02 to 2005/06 seasons) and maize requirement for human consumption trends. The maize requirement does not include other uses such as seed and animal feed as is the case in the food balance sheet

Traditionally, the central and northern parts of the country are the surplus producing areas, whereas the densely populated south is considered perennially food insecure, relying on the bordering regions of Mozambique for some of its food requirements. Yet, this year, according to the Ministry's of Agriculture crop survey, even the south, including the three surveyed districts Phalombe, Machinga and Chikwawa, harvested significantly more than required to meet their consumption needs.

Table 4 – MVAC findings: population on watch

District with populations at risk	Population on 'Watch'
Balaka	16,100
Chikwawa	177,400
Karonga	62,600
Machinga	12,500
Mulanje	35,500
Mzimba	120,000
Nsanje	83,900
Ntchisi	11,200
Grand Total	**519,200**

In general, the good harvest seems to have translated into improved household food security. The Malawi Vulnerability Assessment Committee (MVAC), who carried out its annual nation wide assessment in May, could not find any significant "missing food entitlements". However, MVAC identified some isolated parts of the country, like Karonga in the North and the Lower Shire in the South, where food crop production was below "normal", and also cautioned that the results do not preclude the existence of chronic food needs. The report warns that around 519,200 people (see table 4) whose year-round food security is not assured have to be watched as adverse economic developments could undermine their food access. More than one third of the people at risk are in Chikwawa. One of the main assumptions in these figures is that the average national price of maize will hover around MK 30 per kg.

The MVAC findings are not entirely consistent with this WFP assessment. According to the WFP household survey in the three southern districts, this year's summer harvest was considered worse than last years' by the majority of households. Machinga and Phalombe seem to have nevertheless produced a cereal surplus, hinting towards large differences between farming households within these districts. In Chikwawa however, excessive rainfall had a clear detrimental impact on food availability in the district, as will be explained in detail in chapter 5.

These differences in findings between MVAC and WFP can be attributed to the following three reasons:

1. The MVAC methodology captures only acutely food insecure households affected by a covariate shock, while the WFP approach captures all food insecure households, i.e. also chronic food insure and transitory food insecure affected by idiosyncratic shocks.
2. MVAC uses very high thresholds for determining missing food entitlements, expecting households and individuals to exhaust most of their coping strategies before they are considered food insecure. WFP attempts to identify not only severely food insecure households, but also moderately food insecure, whose livelihoods are at risk, and aims at intervening before harmful and irreversible coping takes place.
3. The MVAC uses the Households Economy Approach and covers the entire country, whereas WFP conducted a statistically representative household survey in only three out of 27 districts. Due to its methodology and geographic coverage, the WFP assessment is able to provide a more detailed and accurate picture of the situation in the surveyed area. This point is also stressed in the MVAC report itself: *"While every attempt is made to produce information that is accurate, time and areas of coverage often limit the extent to which detail can be collected. It is important, therefore, that agencies operating on the ground in each district determine the exact extent of the affected areas, villages, populations and the people in need of assistance."*[26]

4.2 Domestic Maize Market and its Links to Regional Trade

Markets, when functioning efficiently, help move food from surplus to deficit areas, or from net surplus to net deficit countries. This has implications for price changes over time, namely rising prices in the surplus areas on the one hand and falling prices in deficits areas on the other hand. Perceived surpluses in one location can vanish when there is unexpected surge in demand somewhere else. In the larger Southern African context, a web of formal and informal trade characterizes maize trade between net surplus and net

analysis. It is also based on the NSO population projected figures based on 1998 census and assumes a fixed 72.8 percent maize contribution to the total energy intake as used in the food balance sheet.

[26] MVAC Brief (June 2007)

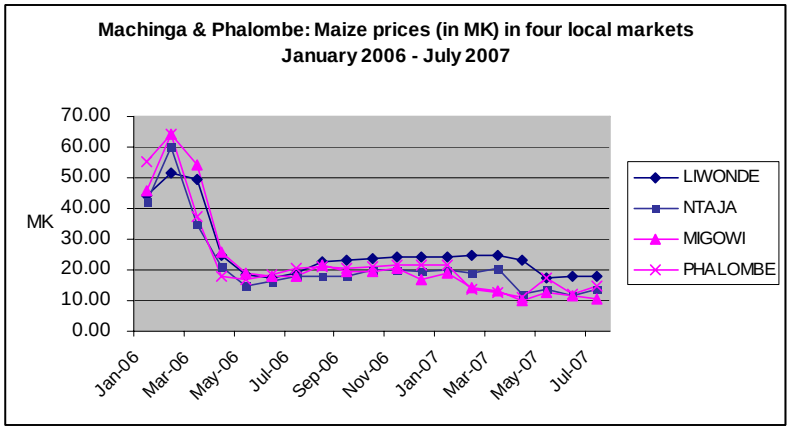
deficit countries, strongly influencing food availability and prices in each country. Malawi's role in this regional trade will be explained later in this chapter.

The maize market in Malawi is characterised by strong seasonality and high transaction costs due to low volumes, inefficient communication systems and poor road infrastructure. Access to credit for working capital and investment is limited due to high nominal and real interest rates, which prevents traders from storing maize, even though enough storage capacity is available within Malawi. Thus, most medium scale traders mainly aim at quick turnovers, extracting surpluses from rural areas to sell them immediately in urban areas or to institutions.

The main producers of maize are subsistence farmers who view maize not as a commercial crop but primarily as a staple crop. Hence after a good maize harvest, trading activities recede, and only when households run out of stocks demand starts surging.[27] While volumes traded are low, the costs and risks of trading are high. This requires high risk premiums and margins to make it profitable to engage in markets, but these high margins themselves depress demand, and can easily result in a "low level equilibrium trap" or market failure (Dorward *et al.*, 2002) in areas where purchasing power is low.[28]

There are several active food markets across the country, where large commercial and small-scale traders are involved in in-country and cross-border food trade. FEWSNET identified 68 main trading centres across the country where prices are collected monthly. The surpluses combined with temporary export bans, have led to a steep drop in maize demand and in prices. A majority of the local markets registered maize prices below MK20.00/kg, with farm gate prices being in some cases as low as MK5 to MK10/kg.

Figure 3 – Maize prices in local markets in Machinga (blue) and Phalombe (pink)

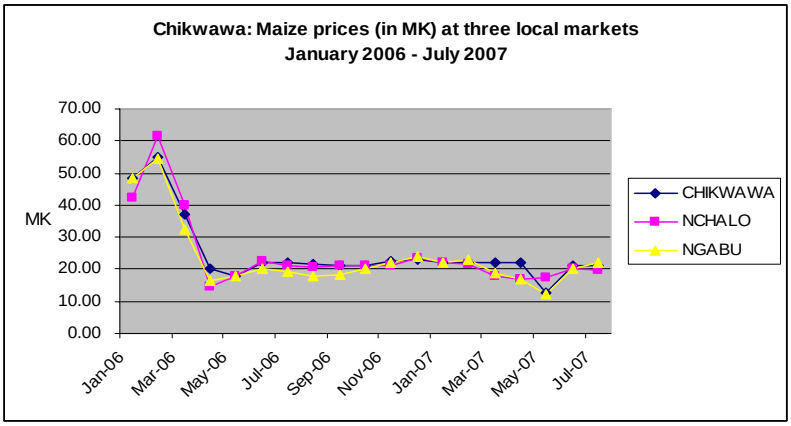


These markets - monitored by FEWSNET - are usually well connected by road, are either in or close to urban areas and are reasonably well integrated as indicated by co-movements of prices. The two graphs below (Figure 3 and 4) show maize price trends over the last 1 ½ years (January 2006 – July 2007) in seven markets that are located in the three surveyed districts in the south. In all seven locations prices peaked at around 60 MK/kg in February 2006 and fall then below 20 MK/kg in May. For a period of one year, prices remained at around 20 MK/kg, until they dropped to their lowest level (around 10 MK/kg) in May 2007. In July, they were ranging between 10-20 MK/kg. There has also been also a clear co-movement and convergence with prices in bordering areas of Mozambique, signalling the importance of cross border trade in the south.

However, there are large parts of the country that are not served by these markets. Especially the population in more remote rural areas rely on small daily and weekly markets or mobile traders, which are only loosely connected to the bigger trading centres. Chapter 5.4 will describe how these peripheral markets function and how households interact with them.

[27] TANGO International, in collaboration with C-SAFE M&E team (September 2003)
[28] Dorward and Kydd (2002)

Figure 4 – Maize prices in local markets in Chikwawa



Apart from unpredictable harvest, demand and prices, maize traders face additional uncertainty and risks in their business stemming from government's interventions in the maize sector. These interventions take the form of export bans, import regulations, price settings as well as direct market interventions through the parastatal Agricultural Development and Marketing Corporation (ADMARC). Government institutions and Standards Bureau involved in import and export process are not easily accessible and bureaucratic procedures result in costs and hassle for traders, who might choose instead to engage in informal trade.

The National Food Reserve Agency (NFRA) and ADMARC are the two government organization dealing with grain. Whilst the NFRA is custodian of national grain reserve, ADMARC is a parastatal organisation with outlets covering the whole country. These outlets are being used for buying maize from farmers during the harvest season at fixed prices, and resale maize during lean season to households not connected to markets. The depots also play a role in the government's input subsidy programme, selling fertilizers at subsidized prices to farmers.

ADMARC remains a major actor in agricultural marketing, but its roles have been redefined and its activities have been curtailed several times in recent years. It has been criticised for being inefficient in both its functions, supporting farmers with subsidised inputs and minimum farm gate prices on one hand, and providing consumers with access to grain throughout the year and at affordable prices on the other hand. An evaluation carried out jointly by MEPD and World Bank in 2003-04[29] warned that the policy of subsidized maize sales through ADMARC discourages maize production. Still, the need was highlighted to maintain the marketing functions provided by ADMARC in some remote areas of the country where alternatives to ADMARC services are less likely to exist and the high transport costs and thin private markets can give rise to substantial price mark-ups compared to urban and semi-urban areas. In that sense ADMARC is seen as fulfilling an important food security task in the country.

In the current context of large surpluses and low prices, ADMARC's position is rather ambiguous. To stabilize producer prices and restore incentives to farmers to plant for the next season, the government has announced a minimum buying price of MK17/kg. ADMARC pegged their purchasing price at this minimum price, which is slightly lower than the MK20/kg they paid last year. However, while ADMARC was expected to buy significant quantities of maize since July, the government deferred the allocation of funds as a result of budget delays. Left with not much choice, many farmers sell their produce at prices below the 17 MK/kg.

Compared to its Southern African neighbors, Malawi has the largest surpluses and the lowest maize price with around US$100/MT. In most southern African countries this year's harvest was only marginal (Mozambique and South Africa) or even poor (Botswana, Lesotho, Namibia, Swaziland and Zimbabwe), with Zimbabwe reporting the largest cereal gap. As a result, the South African Futures Exchange (SAFEX) prices - that are proxy for prices in Lesotho, Swaziland, Botswana and Namibia - are at their highest levels since 2005/06 marketing season. It is expected that the high SAFEX prices will exert an

[29] World Bank (2004)

upward pressure on the prices in Malawi. But also world prices for maize average around US$175/MT and are projected to rise. [30]

Dradri (2007) summarizes prospects for grain trade flows as follows: "*Only Malawi, Zambia and northern Mozambique are believed to have produced marketable surpluses, while the remaining Southern African countries (including South Africa) will require a larger than normal proportion of the national food requirements to be met through imports. These countries ordinarily import part of their food needs even in normal times. However, import prospects will be different this year because their usual source (South Africa) has significantly lower grain production and carryover stocks from the previous year."*

Comfortable surpluses in Malawi combined with large deficits in other South African countries have already led to an unprecedented change in trade pattern. For the last three years, Malawi has been the largest net importer of maize in the region, with imports mainly from Mozambique ranging between 75,000 MT and 155,000 MT per year. This trend has been reversed as the country is now emerging as the largest exporter in the region, with an estimated 450,000 MT of maize due to be exported. An agreement was signed with Zimbabwe for the supply of 400,000 MT[31]. Already, about 114,000 MT of maize had been exported as of July 31, 2007. In addition and rather surprisingly, South Africa imported 4,479 MT of white maize from Malawi and Zambia, while negotiations are underway on maize exports from Malawi to Swaziland

The situation in Mozambique is of particular relevance to Malawi, which is almost entirely surrounded by its larger neighbor and with whom it is connected through an active cross border trade of goods and services. In the last three years, Mozambique exported informally over 70,000 MT of maize annually. Most of which went to Malawi. Even in the current season, informal maize imports from Mozambique are continuing. A total of about 27,000 MT of maize was imported from April to July 2007.[32] Malawi is the main export outlet for the Mozambican producers and traders along the border areas, for whom the main consumption centers in the south of Mozambique are too far away. At the same time, the southern region of Malawi is likely to buy cheaper from Mozambique than from traders coming from other parts of the country. The average maize price in Mozambique is with US$170/MT (February 2007) higher than in Malawi, but prices vary significantly across the country, ranging from US$250/MT in Maputo to US$100/MT in Angonia along the Malawi border.

The import parity price for informal maize imports from Mozambique is US$ 160-165/MT compared to US$ 255 per MT imported through formal channels. The IPP in Malawi is calculated assuming Blantyre as main delivery point, considering the possible official import corridors (see table 5). After Tanzania and Zambia announced bans on maize exports, the main import corridor is from south of Malawi, namely Mozambique and South Africa; and most of the maize coming from south is being stored in Blantyre area.

Table 5 – Import Parity Prices (Blantyre) in Malawi

From Mozambique (informal cross border):	160 -165 USD/MT
From Mozambique (formal from Beira region):	255 USD/MT
From South Africa:	400 USD/MT
From Zambia (formal export):	245 USD/MT (Export Ban)
From Tanzania (formal export):	250 USD/MT (Export Ban)

Even with half a million MT of maize being exported, Malawi has still at least another half million MT surpluses. In view of the government reluctance to allow free flow trade beyond the negotiated export agreements, there is a great likelihood that average maize prices will remain reasonably low in this season, despite upward pressure from international prices. Dradri concludes from his macro level market analysis of the food security situation in Southern Africa that "*on the basis of aggregate cereal availability and trends in prices, Malawi, Zambia and northern Mozambique would be a priori favorable for cash transfers, subject to further market analysis*."[33]

[30] Dradri (2007)
[31] The agreement followed a competitive bidding by Malawi and Zambia, where Malawi offered a lower bid believed to be around US$190/MT compared with much higher offer from Zambia.
[32] FEWSNET
[33] Dradri (2007)

5. Livelihoods, Household Food Security and Markets in the Selected Districts

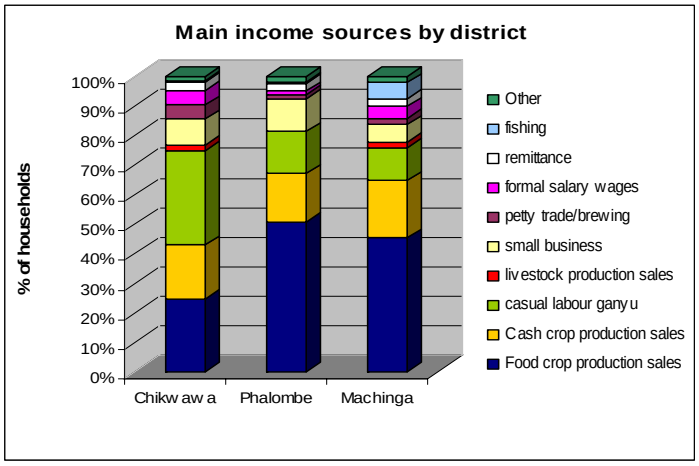
5.1 Livelihoods

The vast majority of rural households in Malawi can be labelled farming households, as they own at least a small plot of land from which they derive food and income. However, as landholdings are small and productivity is low, most households experience food gaps for several months every year and are forced to find additional sources of income. Just over half of households earn some income from crop sales (excluding tobacco), implying that the remaining households are subsistence farming in the strictest sense: farming with no crop sales. Hence, a large share of the rural population depends on a range of non-farm activities. *Ganyu* (casual labour) provides the main supplementary income for more than two thirds of poor rural households, although it is rather a survival option rather than an accumulation strategy. Agricultural labour during land preparation, weeding and harvesting, is the most important form of *ganyu.* These activities take place from October until February. But also working on cash crop estates, helping with brick making and fishing are forms of casual labour. Demand for *ganyu* is seasonal. It goes up when households run out of stocks, and is highest during the lean season between December and March, when also agricultural activities peak (see figure 5). Yet, demand for *ganyu* usually outstrips supply, leading to low labour rates at a time when food prices are high and households rely on purchases. [34]

Figure 5 – Seasonal calendar

Ganyu rates vary by type of activity and season. In the three surveyed districts, agricultural *ganyu* rates ranged between 100 MK to 250 MK (US$ 0.70 – US$ 1.80) per day during the time of the survey, while remuneration for brick making was slightly higher. Women labour rates are often lower, either because the type of activity is different and considered less strenuous (e.g. fetching water for brick making), or because women are just assumed to be less productive. *Ganyu* is usually regarded as a poor and unreliable income source, and households highly dependent on casual labour are considered very vulnerable.

Figure 6 – Main income sources by district



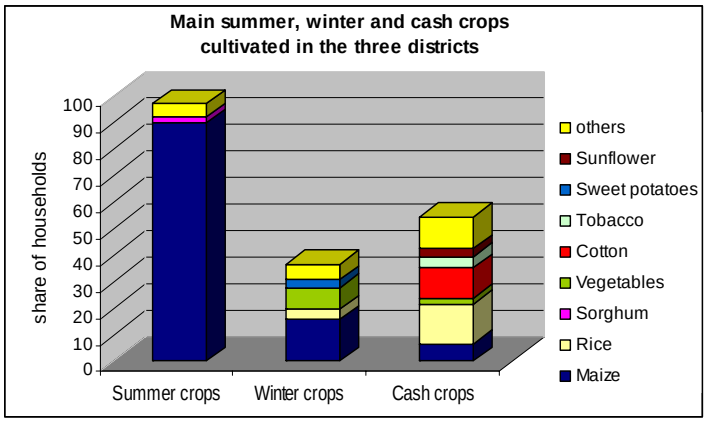
[34] PVA (2006)

In the three districts surveyed, more than ¾ of households have two income sources, and one quarter of households has even three sources. The majority of households rely mainly on crop production, ranging from 43 percent in Chikwawa to 67 percent in Phalombe, and one in every five households on *ganyu*. Only 15 percent are engaged in non farm activities such as petty trade, brewing, small business, or are formally employed. Less than 3 percent of households rely on remittances (see figure 6). Crop production and *ganyu* are also the main secondary income sources for almost 60 percent of the rural population in the three districts. Having more than one income source increases households' ability to cope with shocks, but is not necessarily an indicator for being better off. Most earnings are seasonal, forcing one third of households to shift to a different occupation during lean season, mainly *ganyu* (58 percent).

Variations in income sources reflect the agro-ecological differences of the four livelihood zones to which the three districts belong. Chikwawa belongs to the Lower Shire Valley livelihood zone, which has two types of cultivatable land, mainly upland and wetland *(dimba).*There is substantial winter production in the *dimba* lands bordering the Shire River. Nevertheless, almost one third rely mainly on *ganyu* for their income, which reflects limited returns from crop and livestock production. Fishing is of some significance only in Machinga (6 percent of households), which has access to several lakes. Especially, Lake Chilwa and surrounding wetlands in the south of Machinga are characterised by fishing and rice production. In Phalombe, which is part of the *Phalombe Plain and Lake Chilwa Basin* livelihood zone, income sources are least diversified, and reliance on crop production is highest. Livestock production is very insignificant and concentrates on goats and chicken. Yet there is a significant share of households with small business (11 percent).

Average landholding per household is 2.5 acres (1 ha) with not much variance across the three districts. Hardly any plots are irrigated and therefore agriculture production is highly seasonal and determined by the quality of soil and location of the landholding: upland, lowland or *dimba*.

Figure 7 – Main summer, winter cash crops cultivated in the three districts



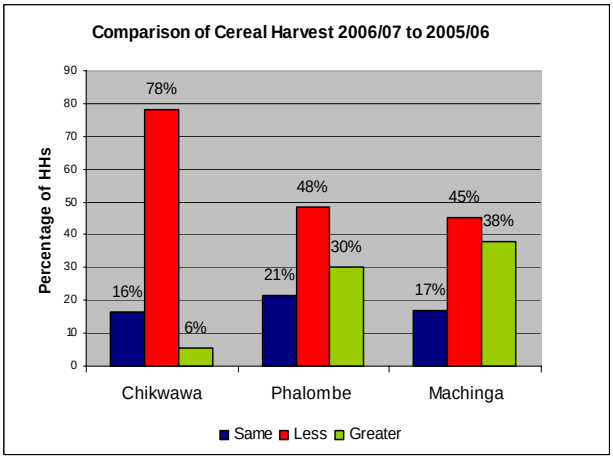
Almost all households cultivate summer crops, while around one third are able to harvest also winter crops. More than half of the households have cash crops, which are grown both during summer and winter season. Most farmers grow at least two crops during summer harvest, with maize being by far the most important crop, cultivated by more than 90 percent households, followed by sorghum, millet and rice. The main winter crops are maize, rice and vegetables, while rice and cotton are the dominant cash crops. Tobacco – Malawi's main export crop - is cultivated by only 4 percent of surveyed households (see figure 7).

Gender differences in agriculture related decision making
Women hold decision making power in female-headed households, in male headed households there is a clear division: to the extent that women are involved in decisions about inputs and planting, their role is largely limited to crops that do not require fertilizer application, and where seeds are recycled. They make these decisions about 50 percent of the time, compared to just 10 percent of decisions where fertilizer is applied. For cash crops that require purchasing more inputs (fertilizer, seeds and pesticides), men make almost all decisions.
PVA

There are notable gender differences in crop production and related decision-making (see box). Regardless of household size, women grow crops for home consumption to a greater extent than men, who are

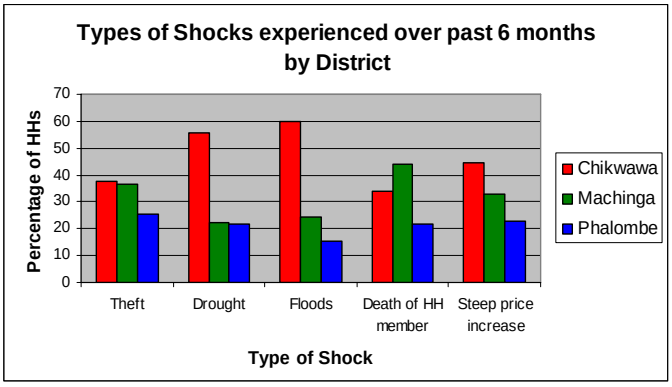
more likely to cultivate at least some cash crops. Tobacco for example is predominantly a 'male' crop. Moreover, for food crops such as maize, men are more likely than women to utilize higher yielding hybrid strains that require fertilizer for sale, rather than the lower yielding, seed-bearing strains chosen by women for domestic use.

Figure 8 – Comparison of cereal harvest in three districts 2006/07 to 2005/06



This year's summer harvest was worse than last years' for the majority of households in the three districts. Poor weather, especially floods in Chikwawa and erratic rains in parts of Phalombe and Machinga are the main reason. In Chikwawa, the impact of adverse weather was most pronounced. Floods, early on in the cropping season, affected 60 percent of the population and were - besides other idiosyncratic shocks at household level (see figure 9)- one major reason why one third of households cultivated less land, and almost 80 percent had a reduced harvest compared to last year (see figure 8). The lower river valley is a typically flood prone, where only few upland areas are spared from the impact of this type of shock. In the other two districts, around one fifth of the population, mainly lowland farmers, was affected by poor rains. Notably, rains had a mixed impact within the same communities: different households reported both a better and a worse harvest, purely dependent on the location of their land within the community.

Figure 9 – Types of shocks experienced over past 6 months by district

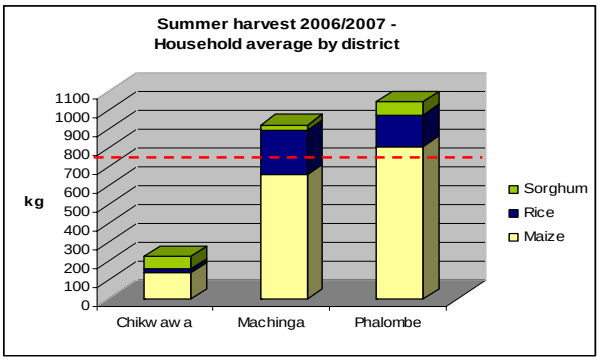


On average, households harvested 500 kg of maize, 50 kg sorghum and 134 kg of rice. However, there are large differences between districts (see figure 10): In Chikwawa, households got hardly more than 230 kg cereals (thereof 140 kg of maize), while in Phalombe the corresponding figure is almost five times as high (1040 kg). A family of five requires roughly 60 kg cereals per month or 720 kg per year only for own consumption. In addition, at least ten percent of the cereal harvest is usually sold, bartered, shared etc. A much larger share of cereals is sold by the better off farmers who usually produce surpluses. In Chikwawa, where the average household size is 5.1, households expect that their cereals will last less than 3 months. Whereas in the other two districts, households believe to have stocks for more than 6 months, until November/December. Hardly anybody reported to have still carryover stocks from last year (3 percent of households).

The comfortable cereal surplus in Phalombe hides significant differences between better off households who enjoyed a bumper harvest and the significant share of marginal farmers, whose harvest was reduced by erratic rains and other idiosyncratic shocks.

In general, the asset base of the rural population in Malawi is very thin; households usually own very few productive and non productive assets. In the three districts only 5 percent of the surveyed households have an oxcart, 2 percent a tractor, 1 percent a plough and roughly half have a bicycle. Bicycles are the main transport mode in these areas and owners often earn an income by bringing villagers to markets or hospitals. Basic household assets are strikingly rare, with only one quarter of households having a bed and less than one third a table. Mobile phones and fridges are luxurious possessions of some 3 percent of households.

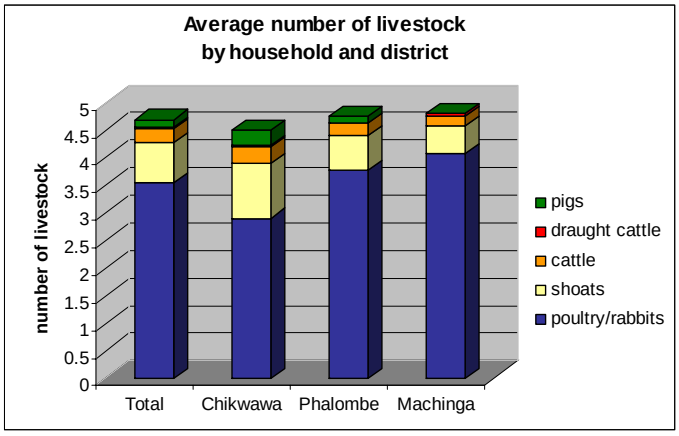
Figure 10 – Summer harvest 2006/2007: household average by district



Poultry, sheep, goats and cattle are the most common livestock in Malawi; however, livestock ownership is very low by regional standards. In 2004/5, only 57 per cent of households owned livestock and only few of them other than poultry. Moreover, livestock is very unequally distributed with households in the North having three times more animals than households in the South.

In the three southern districts, households have less than 5 animals on average, of which 3-4 are poultry. However, averages are not very meaningful as livestock is concentrated in the hands of only 23 percent of the population. These households own primarily poultry, even less households have sheeps or goats, while only a few have more valuable livestock, such as cattle (see figure 11). Only 2 percent of households in Chikwawa and Machinga live mainly from livestock sales.

Figure 11 – Average number of livestock by household and district



Low levels of livestock have major implications on livelihoods. Elsewhere in Africa, livestock provides draught power and manure for farming, serves as pack animals for transporting goods to and from markets, provides nutritious food (meat and milk), and stores wealth and savings that accumulates in good times and can be drawn down in emergencies. In Malawi, these benefits are limited. The few chicken (market value is less than 100 MK/chicken) that most households own, hardly protect against shocks, let alone being an important source for animal protein in the diet.

Malawian smallholders face constrained access to all major productive inputs required for sustainable agriculture: water, land, soil, livestock, seeds and fertiliser. Especially fertilizer is crucial for increased crop production. While fertilizers are generally available in local markets, poor households cannot afford to buy adequate amounts at market prices. The government, in its attempt to increase farmers' access to agricultural inputs (in particular fertilizers) has been implementing a free input program, now known as Targeted Input Programme (TIP). During the last season 2006/07, the GoM sold fertilizer at the subsidized fertilizer price of MK 950 per 50 kg bag, considerably lower than the market price of around MK 3,500. This initiative is believed to have significantly contributed to the overall improved harvest. Encouraged by these results, the GoM announced a further reduction of the fertilizer price to MK900. More than 3 million coupons were distributed nationally, of which approximately 1.4 million in the South. 40 percent of interviewed households in the three surveyed districts used fertilizer in the last cropping season, of which two thirds had access to government vouchers.

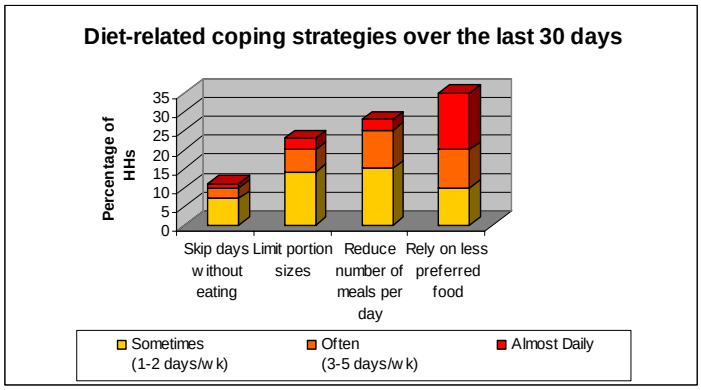
5.2 Coping Strategies

Households employ a number of strategies to deal with difficult times. Many of these strategies help bridging a crisis in the short-run, but with detrimental long-term implications. For example, if households draw down critical productive assets, they may end up perpetually trapped in poverty. Since the assessment took place during harvest period, it can be assumed that any coping strategies observed during the survey will be even wider and more frequently applied towards the end of the year, especially during the lean season.

The choice of coping strategies is limited for most Malawian households. One common way to deal with food shortages is casual labour. Most *ganyu* opportunities are closely linked to the agricultural cycle and are greatest during weeding period starting November/December, which is the beginning of the lean season. However, there is a risk that working for others, prevent households to prepare their own land when it is time for it, reducing their harvest prospects. Brick making, fishing and working on cash crop estates are other *ganyu* activities that are pursued throughout the year, but by a much smaller share of households.

Other coping mechanisms are adjusting household food intake, borrowing money and selling livestock. Chikwawa had the highest share of households engaged in each of the different coping strategies during the time of the survey. As a result of floods and poor harvest, demand for *ganyu* was relatively high. As opportunities were not matching the demand, some households were already seeking work in more distant places.

Figure 12 – Diet-related coping strategies



In terms of food based coping, generally, caloric availability from maize is maintained relatively constant over time, even in the face of diminishing supplies and increasing market prices. Instead, households cope by reducing the consumption of other foods and consuming green maize[35]. Reducing the quantity and quality of meals compromises the health of family members, with serious repercussion especially for children whose future productivity is put at stake. In the surveyed districts, thirty-five percent of households adjusted their diet over the last thirty days by relying on less preferred or less expensive foods (see figure 12). Reducing number of meals eaten per day is the second most common strategy (28 percent), followed by the limiting portion sizes at mealtimes (23 percent). Skipping days without eating was least observed (11percent of households). Over half of those who mentioned doing this live in Chikwawa.

Borrowing money is not a widely used solution in difficult times: only 14 percent of households said that they had borrowed money during the past three months. The recall period ranged from March to May, including the end of the lean season. Money is usually borrowed from relatives and friends, and it seems that the role of money lenders or formal lending institutions is negligible. The three most frequently mentioned reasons for borrowing are payment for food, for health care and for investing in business assets. Interest rates are very high with up to 100 percent over a six month period, which is clearly one reason why borrowing is not an option for the majority of households. The amounts borrowed varied greatly, from 50 MK (US$ 0.5) to 15,000 MK (US$ 107). Selling livestock is another mechanism people resort to when food or cash is needed. During the last lean season (November 2006 until March 2007), 15 percent of households sold or bartered some of their livestock. The majority is from Chikwawa, where households on average own higher value livestock than in the other two districts.

[35] PVA (2006)

5.3 Food Consumption Pattern and Food Sources

In Malawi, average caloric intake is low across the board. Around 35 percent of Malawians consume insufficient amount of calories, with significant disparities between urban and rural dwellers and across regions. According to IHS 2 data, the average caloric availability in rural south is only 1,703 kcal per capita per day, far below the internationally agreed minimum standards of 2,100 kcal. The average per capita availability of calories decreases markedly during the lean season, as home stores get depleted and market prices increase.[36]

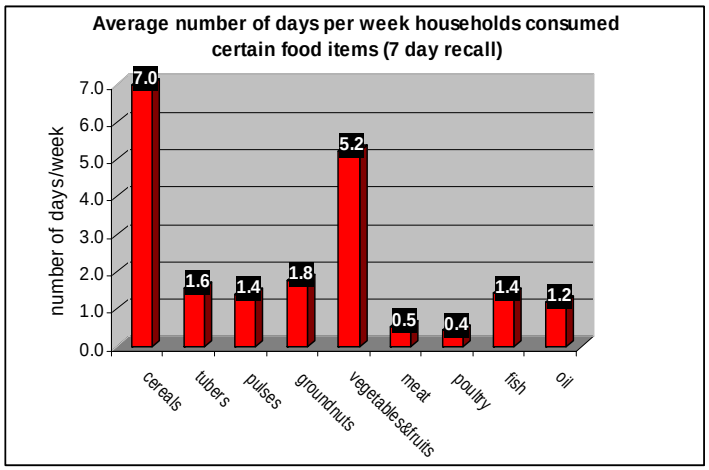
Table 6 – Caloric availability per capita per day: by region, location and poverty status

	Non-poor				Poor				Total			
	North	Centre	South	Total	North	Centre	South	Total	North	Centre	South	Total
Urban	2,857	3,125	2,676	2,890	1,945	1,923	1,784	1,864	2,547	2,829	2,459	2,630
Rural	2,914	3,071	3,126	3,073	1,738	1,811	1,703	1,746	2,253	2,482	2,210	2,332
Total	2,906	3,080	3,028	3,041	1,751	1,818	1,707	1,752	2,281	2,522	2,239	2,366

Source: National Statistical Office, IHS2

Ideally, a household should regularly consume food items from each of the six main food groups: carbohydrates, animal products, oils and fats, fruits and vegetable, legumes and oilseeds, tubers and roots. As a bare minimum, individuals should eat daily carbohydrates (usually provided by the staple food maize or rice), a source of protein (e.g. pulses, meat), oil/fat and some days per week fresh vegetables or fruits. The Malawian diet - however - is not very diversified. It is dominated by cereals – mainly maize - which comprise over 60 percent of total calories.

Figure 13 – Average number of days per week households consumed certain food items (7 day recall)



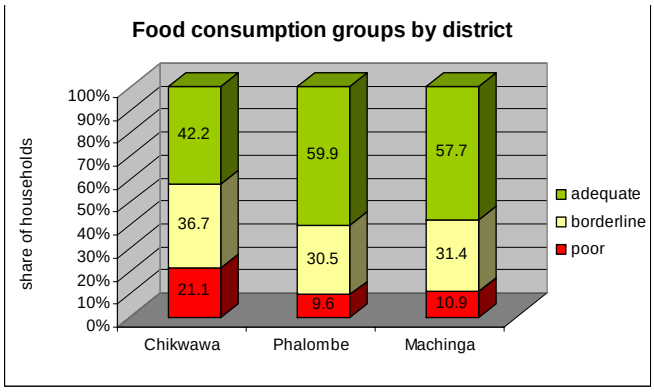
To analyze the adequacy of diets of households in the three districts, a seven day recall was used in the survey. Households indicated the number of days they consumed certain food items during the previous week. Results of this snap shot have to be read with the understanding that this survey coincided with the harvest period, assumingly a period of plenty. Food consumption is seasonal and average per capita daily caloric consumption is higher during the months following the harvest (May-August), and then begins to fall as stocks become depleted. It reaches its lowest point in March, right before harvest. Because of the resulting spikes in the price of maize during the lean season, the average Malawian slightly adjust downwards maize consumption while still spending significantly more, on average.[37]

To judge whether households with currently adequate food consumption will be able to maintain a good diet over the year, or to what extent it will deteriorate, additional factors related to household food access have to be considered, such as food stocks, income sources and assets. Conversely, a significant share of households with inadequate food consumption at this point in time indicates most likely crop failure and should be a matter of concern.

[36] PVA (2006)
[37] PVA (2006)

As shown in figure 13, on average households consume cereals everyday and vegetables on more than 5 days per week. Pulses or groundnuts are eaten on three days, while the animal protein in the diet comes mainly from fish. Poultry is eaten less than once a week, despite the fact that most households have some chicken. The diet clearly lacks oil/fat. Oil is traditionally not used for cooking and is considered rather a luxurious commodity. But also consumption of pulses, sugar and meat appears to increase with income[38].

Figure 14 – Food consumption groups by district



The majority of rural households in Malawi consume two meals per day, and less when food becomes scarce. In the three districts, households currently eat on average 2 meals per day, with Chikwawa slightly below the average (1.9) and Machinga above average (2.2). Having three meals per day is the privilege of better off households only.

Based on the number of food items eaten per week, households were classified into three food consumption groups: poor, borderline and adequate (see Annex for more explanation on the methodology). Chikwawa has the highest percentage of households with poor food consumption: 21 percent compared to around 10 percent in the other 2 districts (see figure 14). Households in the poor food consumption group have a diet that is insufficient in quantity as well as quality, putting their nutritional and health wellbeing at high risk. Their daily diet consists of little more than cereals, if at all. Vegetables are eaten on 3 days, while the consumption of other food items is very irregular (see table 7). An analysis of food consumption by livelihood groups shows that their main income sources are livestock sales, *ganyu* and food crop production.

Table 7 – Consumption of different food items (number of days/week) by the three food consumption groups

Consumption category	cereals	tubers	sugar	pulses/ gnuts	vegetables	fruits	meat	poultry	fish	oils
poor consumption	6.0	0.7	0.6	0.3	3.1	0.6	0.1	0.0	0.1	0.2
borderline consumption	7.0	1.1	0.8	1.7	4.1	0.6	0.2	0.1	0.7	0.3
good consumption	7.0	2.0	2.3	4.8	4.6	1.3	0.8	0.7	2.2	2.0
Average	**7.0**	**1.5**	**1.6**	**3.1**	**4.2**	**1.0**	**0.5**	**0.4**	**1.4**	**1.2**

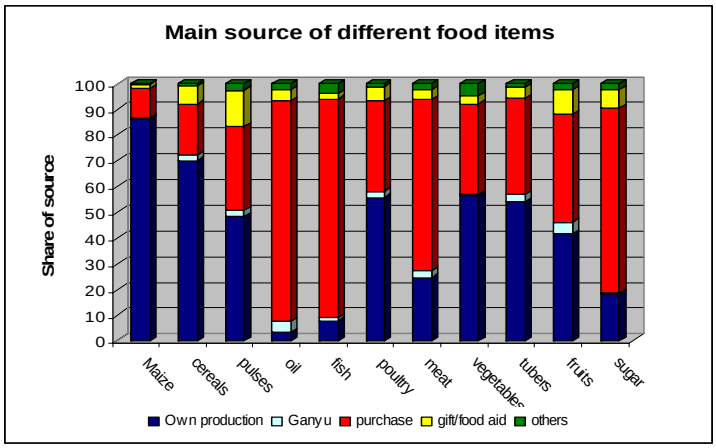
The borderline food consumption group comprises around one third of households. Their diet may be sufficient in terms of kcal, but not in diversity. These households earn their living mainly from *ganyu*, cash and food crop production. They can easily fall into the poor food consumption group if their food access deteriorates. 52 percent of households have good food consumption, in Machinga the share is even 60 percent. Cash crop farmers, households with small business and formal employment are most likely to belong to this group.

The sources for the various food items vary considerably. Almost half of all calories consumed in Malawi are home-produced. The share of total calories from home production is strongly conditional on access to agricultural land. Consequently, households with smaller landholdings are less able to grow sufficient food and are thus more dependent on cash income to purchase food.[39]

[38] PVA (2006)
[39] PVA (2006)

Figure 15 shows the different sources for various food items in the three districts during the time of the survey in May. More than 85 percent of maize consumed is from own production, as well as around half of the pulses, tubers, vegetables and poultry. In contrast, oil, sugar and fish are primarily purchased. 14 percent of pulses are acquired as gift or food aid. The shares of own production for different food items vary by season. For cereals the share is expected to decrease towards the end of the year, and even earlier in Chikwawa, while the share of vegetables from home production will slightly go up a bit once winter harvest starts in September. During last the lean season 2006/2007, households obtained only one third of their cereals from own production, while 32 percent was purchased, compared to less than 15 percent post harvest. One quarter came from casual labour and roughly 5 percent from food aid.

Figure 15 – Main source of different food items



5.4 Importance of Markets for Household Food Access

Markets are important with regard to food availability and household food access, two of the three pillars of food insecurity (third one is food utilization). Food availability has spatial and temporal dimensions. The question is how well markets will fulfil their role in moving surpluses to deficit areas and smoothening supply throughout the year by absorbing surpluses during harvest period and selling stocks during lean season. This issue was analysed in chapter 4, whereas this chapter focuses on whether markets ensure stable supply of food items in the vicinity of local communities at affordable prices. The price level influences purchasing power of households and thereby household's food access. To what extent food access will be influenced via prices depends however on the relevance of markets as a source of food for households.

The main questions analysed in this chapter are:

- Who depends on food markets, when and why?
- Who are the main suppliers from which households buy during different seasons?
- How reliable are markets from a household's perspective?
- What factors influence market functioning?

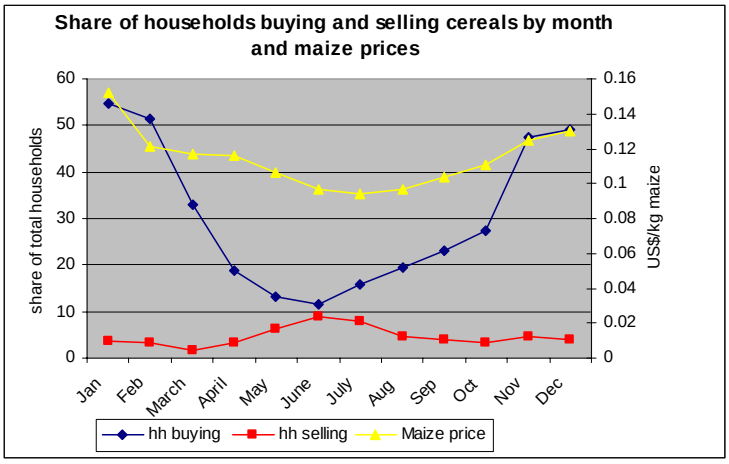
At the end of this chapter an attempt is made to create a market index to support the spatial analysis of market functioning

The previous chapter described the various sources from which households obtain food, with own production having been identified as pivotal. However, while markets are less important for households in the middle of the year, they become a critical source of cereals during lean season. A vast majority of the rural population in the South depends on food purchases, particularly in the lean season. In the surveyed districts, 70 percent of households purchase cereals for own consumption at least at one point in time during the year, while only 22 percent sell cereals from own production. Households who sell are likely to have a marketable surplus, although some farmers are forced to sell part of their harvest because of liquidity constraints, and will re-enter the market at a later stage as buyers. It is mostly the poor who sell

cheap right after the harvest and buy expensive during lean season. The IHS 2 found that proportionately more poor rural households buy maize precisely when prices are at their highest. Although poor households are the least able to absorb the costs, they remain the most exposed to seasonal price fluctuations.

The few households with significant surpluses can afford to wait until June/July when mobile traders come to their villages to buy, or they even wait until the lean season and sell then to other households in their village. During the survey, households were asked whether and where they purchase cereals during the year. This question combined a recall period of seven months (November 2006 – May 2007) with a forecast period of five months (June – October 2007). From the figure 16[40] a clear picture emerges: the share of households who buy maize increases steadily after the harvest, from around 12 percent in May/June to more than 50 percent in January/February, when food scarcity is at its height and maize prices peak. Figure 17 shows how sources for cereal purchases vary over time

Figure 16 – Share of households buying and selling cereals by month and maize prices



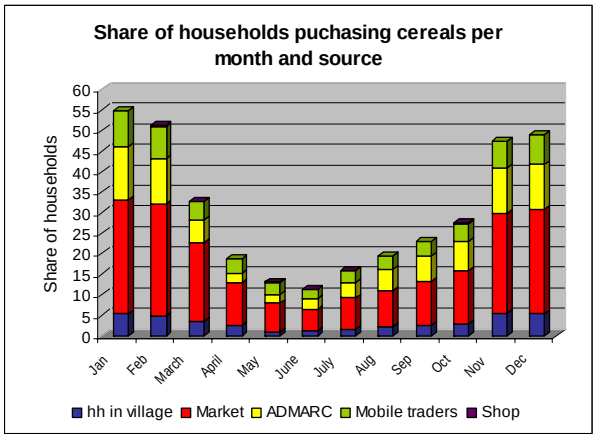
Differences between the three districts are remarkable (see graphs in Annex V): In Chikwawa, one quarter of households purchase cereals even during post harvest period, and the share goes up to almost 70 percent in the lean period. The comparatively large share of households that bought cereals in May can be explained by the poor harvest in large parts of the district. Traders confirmed that due to the maize deficit in Chikwawa, they started earlier than usual supplying markets with maize from other areas (mainly Thyolo district). In the other two districts, the share of households buying cereals never exceeds 50 percent in one month, and is as low as 3 percent in May/June. This trend is reflected in household expenditures: During last lean season, food accounted for more than half of total expenditures of households in Chikwawa, but dropped to 38 percent in April. Whereas in Machinga and Phalombe, food expenditures stayed around 50 percent during lean season and went down to 30 percent during harvest period.

Looking at the different sources for cereal purchases, it becomes clear that markets are the dominant source for households, followed by ADMARC, mobile traders and other households in the same village. The importance of all sources increases towards the lean season, almost proportionally.

ADMARC was found to play an important role, despite the prevailing criticism of it being unreliable, selling low quality products, long waiting hours etc. Almost 60 percent of surveyed communities reported to purchase from ADMARC, mainly during lean season. In Machinga, ADMARC is used equally by communities for buying and selling cereals, while in the other 2 districts only half the number of communities who buy from ADMARC also sell to the depot. ADMARC depots are on average closer to the communities than markets, ranging from 5.3 km in Machinga to an average of 11 km in Chikwawa.

[40] Maize prices between June and December are based on predictions made by Simon Dradri (draft June 20007)

Figure 17 – Share of households purchasing cereals per month and source



The presence of ADMARC depots signals in many instances remoteness of the community, which is in line with one of the functions of ADMARC, namely serving areas with weak markets. On the other hand, depots are also competing with markets, and severely undermine traders' ability to forecast demand for their goods. During the survey, it was observed that in several locations ADMARC had either closed down entirely or stopped maize sales, while continuing selling fertilizers. The criteria for phasing down in certain places and not in others weren't obvious. For example in some remote places ADMARC had closed since many years, while in other busy area in Machinga, ADMARC was fully operational selling to and buying from farmers and traders. Apparently food is moved around between depots, and villagers rarely have an idea when food will arrive at ADMARC and what the price will be. From a traders' perspective, the lack of predictability of ADMARC supply and prices can be seen as a major distortion of market functioning.

Table 8 – Average maize price/kg in May and distance between markets and surveyed communities in the three districts

	Average distance to market	Average Maize price per kg
Chikwawa	14.1 km	18.8 MK
Machinga	9.1 km	11.7 MK
Phalombe	4.8 km	11.1 MK
Overall	9.5 km	14.1 MK

Contrary to a wide belief, presence and functioning of markets does not seem to depend much on tarmac roads. In Phalombe, for example, communities are on average almost 70 km away from a tarmac road, whereas many markets operate in less than 5 km distance to most communities. Yet, large distances to markets in certain areas may indicate market failure due to hesitant response by suppliers to depressed demand. Traders face high transactions costs in chronically poor areas due to low trade volumes and high transport costs. In this context high margins are needed to make trade profitable[41]. In May, average maize prices were highest in Chikwawa (19 MK/kg) compared to 11-12 MK/kg in the other 2 districts. The compromised harvest is obviously a key factor that pushes up the prices. Another reason is proximity of Chikwawa to a major urban area, Blantyre, where traders can easily sell in bulk to a large number of households without having to move around.

The majority of the population in all three districts walks to markets for purchasing their food, whereas the remainder uses bicycles. Especially in Phalombe, walking is much more common than biking. It is common practice for households to rent a bike at a fee ranging from 100MK to 400MK for a distance of around 5-30 km. Public transportation or usage of own vehicles for reaching markets was uncommon.

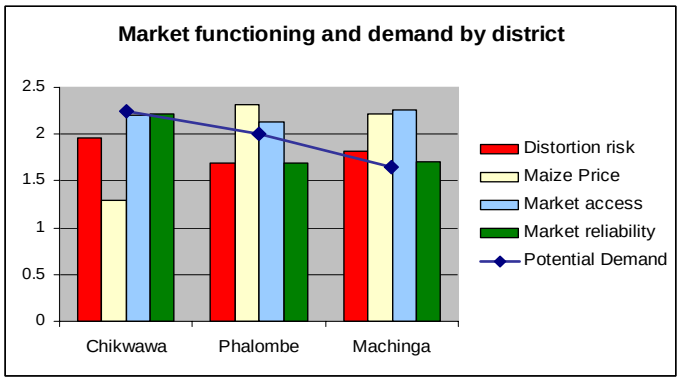
To be able to assess and compare market functioning across different areas the following indicators were used, collected during households and community interviews:

- Distance to markets in km, weighed by accessibility during rainy season;
- Maize prices in local markets in May 2007
- Reliability of markets during lean season, measured in the number of months households go to markets between November and March;
- Possible market distortion through ADMARC, measured as frequency at which households purchase cereals at ADMARC throughout the year.

[41] Dorward and Kydd (2002)

Figure 18 compares the three districts in terms of market functioning; the higher the scores the better. For example, the risk of market distortion through the presence of ADMARC is lowest in Phalombe, where fewer people purchase cereals at the depots. Chikwawa fares worst with regard to maize prices, but best with regard to market reliability. This can be partly explained by the fact that the population in Chikwawa is less food secure and more dependent on markets. As can be seen in the graph in Annex V, up to one third of the households in Chikwawa purchased cereals on the market during the last lean season, compared to 20-25 percent of the population in the other two districts. The line indicates the estimated potential cereal demand in the three districts, and is based on the share of population that obtains cereals through purchase minus the stocks from this years' summer harvest. As expected, the demand is highest in Chikwawa

Figure 18 – Market functioning and potential cereal demand by district



Chapter 8 will describe how the market index in combination with a food security index was used to cluster the 64 surveyed communities according to which resource transfer would be most appropriate. A map in Annex I shows the results.

5.5 Food Insecure Households in the Three Districts

Earlier, food consumption groups were identified based on a snapshot of what households ate during one week in May. To predict how this picture might change over time, households' ability to access food until the next summer harvest needs to be analysed. In the three southern districts households mainly acquire food through own production, income earning activities that allow purchasing food or are directly remunerated in kind, and assets that can be sold in times of need or bartered for food. Based on these findings, a food access index was created using the following indicators:

- Number of month household food stocks will last;
- Number of assets (Livestock, household and productive assets) weighted by value;
- Income sources, ranked by their ability to generate adequate and reliable income over the year

This food access index is dynamic, as it considers depleting resources, coping potentials and reliability of income over time.

Figure 19 – Food consumption groups by food access groups

Food Consumption Group	*Poor*	*Borderline*	*Adequate*
Adequate	12.5%	25.6%	14%
Borderline	14.1%	15.7%	3.5%
Poor	8.3%	5.6%	0.7%

Food Access Group

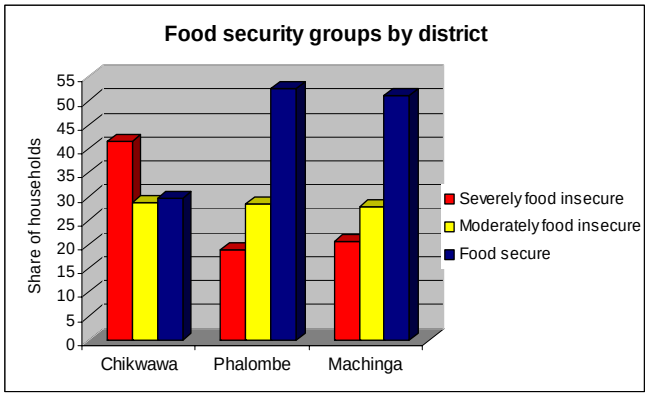
Households with poor or borderline food consumption and poor or borderline food access are considered severely food insecure (see figure 19, red boxes). It is estimated that 28 percent of the total population in the three districts or around 342,000 people (see table 9) fall into this category. Households with borderline diets and borderline food access are counted as moderately food insecure (figure 19, yellow boxes), as well as households with borderline access but adequate diets. This latter group should normally be very small. However, the significant share of the population who currently eats well, despite poor access (12.5 percent), comprises probably the ones who enjoyed a good harvest and increased their food consumption, though not necessarily for long. The reverse might be true for the 0.7 percent of the population, with poor food consumption despite good access. They might have been affected by a shock that compromised their ability to have proper meals, such as poor harvest or illness/death of an income earner or caretakers. In total, 351,000 people are assumed to be moderately food insecure. The food secure households (green boxes) represent the largest group, comprising 43 percent of the population or around half a million people.

Table 9 – Number and percentage of severely food insecure, moderately food insecure and food secure population in the three districts

Food security groups In the three districts	HH surveyed	share of total	Population
severely food insecure	210	**28%**	**340,400**
moderately food insecure	212	**29%**	**351,400**
food secure	323	**43%**	**524,000**
	745	100%	1,215,800

Not surprisingly, the largest concentration of food insecure people can be found in Chikwawa, where floods severely affected crop production. It is estimated that around 40 percent of households in this district are severely food insecure, compared to around 20 percent in the other two districts (see figure 20).

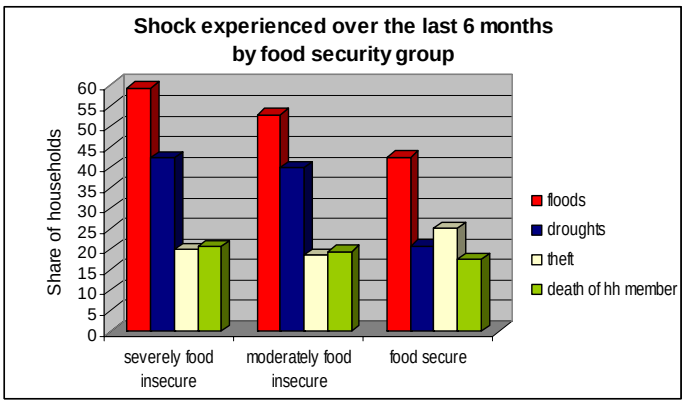
Figure 20 – Food security groups by district



The profile of the food insecure population in the three districts - as described below - confirms IHS 2 findings in that food insecurity or otherwise poverty appears to be largely caused by exposure to frequent shocks in combination with structural problems. More than half of all food insecure households have been affected by floods and more than 40 percent by drought over the last six months (see figure 21). Idiosyncratic shocks appear to be less correlated with food security: theft or death of a household member affects one in every five households in the three districts irrespective of the level of food insecurity. Theft is the only shock that happens more often to food secure households. The close correlation between covariate shocks and levels of food insecurity hints towards a certain geographic concentration of food insecure people in flood and drought prone areas.

Apart from transitory shocks, food insecurity has its roots in major structural constraints at household level. Yet, shocks and chronic food insecurity are intrinsically linked in a vicious cycle, whereby recurrent shocks lead to a decline in consumption and assets, thereby reducing productivity and income, making households even more vulnerable to the next shock.

Figure 21 – Shock experience over the last 6 months by food security group



Severely food insecure households are characterised by small landholdings, on average less than 2 acres, and undiversified livelihoods. Their main income source, *ganyu* or food crop production, contributes 78 percent to their total income. They own only few assets, both productive and non-productive, live further away from markets, but are at the same time highly dependent on markets, especially cereal markets.

Figure 22 – Main source of cereal during the lean season by food security group

Their own production covers only a small share of their food requirements. During the summer cropping season, they cultivated on average only 1.7 acres, harvested around 0.4 MT of cereals (76 percent), sorghum (10 percent) and rice (14 percent). 85 percent of their harvested cereals is planned for own consumption, around 5 percent will be sold, and the rest will be used for barter, debt, sharing with others etc. They are likely to run out of stocks around August. By that time, August/September, around one quarter of the severely food insecure households may be able to harvest winter crops, the remaining households will have to rely on *ganyu* and other equally meagre income sources such as firewood sales.

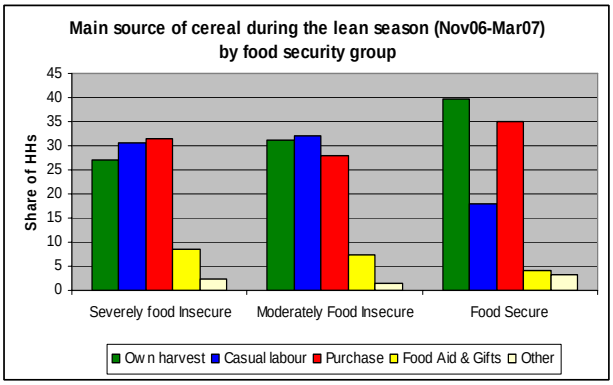
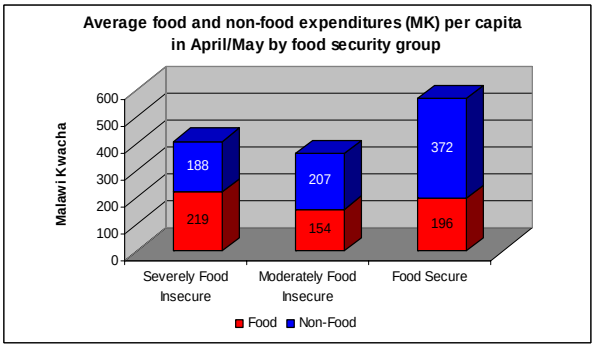


Figure 23 – Food and non-food expenditures (MK) by food security group



During last lean season, one third obtained cereals mainly through *ganyu* (remunerated in kind), another third purchased cereals and around 8 percent relied mainly on food aid (see figure 22). In April, they had the highest per capita food expenditure and lowest non-food expenditure among the three groups (see figure 23).

Food secure households are with 4.9 members on average larger than the other two groups; but they have also more able bodied adults. Only 8 percent have somebody who is chronically ill or unable to work, compared to 17 percent of the food insecure households. Consequently, the ratio of dependents to able bodied adults (18-59 years) is lowest in the food secure group. Food insecure households are twice as likely to be headed by females or by elderly as food secure households.

In fact, less than half of the severely food insecure households are headed by a male adult, compared to three quarter of the food secure households.

Table 10 – Households composition by food security groups

	Average household size	Female headed households	Elderly headed	With members, who are chronically ill or unable to work	Mean number of dependants/ able bodied adults	Labour constraint households		
						> 3 dependants per able bodied adult	No adults	with one adult who is chronically ill or unable to work
Severely food insecure	4.4	33%	19%	17%	2.05	8%	10.5%	4.3%
Moderately food insecure	4.8	31%	13.7%	17%	2.13	8%	9.0%	8.1%
Food Secure	4.9	16%	9.9%	8 %	1.75	5%	2.8%	1.6%
Total	*4.7*	*25%*	*13.6%*		*1.92*	*6.8%*	*7%*	

A considerable share of households is labour constraint, which means that their possibilities to participate in economic activities are limited. They have either many a very high dependency ratio, i.e. more than 3 dependents per able bodied adult, or no adult at all who is able to work. 23 percent of severely food insecure households fall into this category, compared to less than ten percent of food secure households. There is not much difference with regard to orphans: In all three groups, every fifth households takes care of orphans.

6. Resource Transfer Preferences, Gender and Security

The previous chapters analysed markets, identified food insecure people and described their characteristics. Yet, to determine which response option is most appropriate the following additional factors have to be considered:

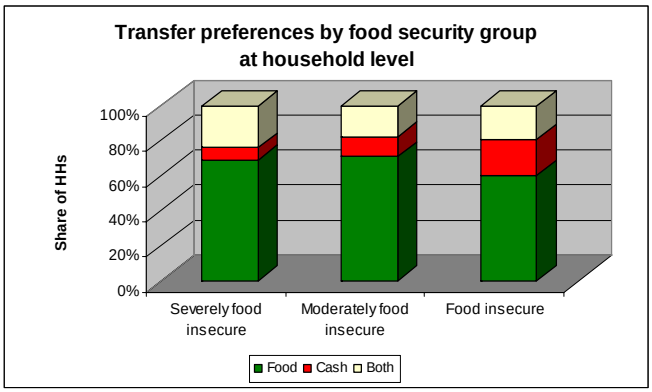
- Household preferences for food, cash or a mix of both
- Intra household control over resources and decision making
- Security

6.1 Household Transfer Preferences

The vast majority of communities as well as households interviewed in all three districts would prefer receiving food transfers. Of the two thirds of households who stated a preference for food, more than 80 percent mentioned “satisfies household food shortages” as main reason. Other arguments given were that food prices and supplies are unpredictable and food is easier to share with relatives and friends. During community discussions, both men and women talked frequently about possible ‘misuse’ of cash, namely the risk of being tempted to spend cash on non-essential items (i.e. alcohol or other non-food items). This was one of the main reasons why communities overwhelmingly preferred food over cash. Especially, women were concerned that their husbands would use cash on beer and extra-marital affairs, instead on food or other essential items. Astonishingly, in a large number of men admitted to their ‘weakness’ and also preferred food over cash.

There is a distinct difference between Chikwawa and the other two districts: Three quarters of households in Chikwawa would prefer food, while in Phalombe and Machinga around two thirds opted for food. The poor harvest and the comparatively high prices in Chikwawa are likely to be an important reason for the food inclination. Also, it appears that the more food insecure people are, the more becomes direct access to food a priority (see figure 24). 20 percent of food secure households prefer cash, compared to 7 percent among the severely food insecure.

Figure 24 – Transfer preferences by food security group at household level



These results have to be read with caution, as many of the fears surrounding cash can be addressed through appropriate project design, such as adjusting the transfer value to the local food prices, or giving cash to women etc. When cash transfer modalities were explained to communities, they often changed their minds. Whether communities will uphold their preferences and would hence not qualify for a cash pilot, would have to be seen during a community sensitization process prior to the start of the project. Findings from the FACT evaluation showed that "beneficiary preferences might also shift over time, for instance if a predictable cash transfer programme succeeds in gradually stimulating food trading and integrating local markets, so that beneficiaries' initial fears about market failure or exploitation by traders are ameliorated."[42]

6.2 Intra Household Control over Resources and Decision Making

Roles and responsibilities are clearly divided between men and women in rural Malawi, whereby men are 'traditionally' the decision makers on all household related matters as the natural heads of households, and women are concerned with all issues related to the kitchen and food[43]. Women work longer hours than men, but spend considerably less time on income generating activities (17 hours per week compared to 27 hours for men). The difference is made up in domestic chores, much of which includes heavy labour such as fetching firewood and water, and this extra female burden also extends to girls, especially after age 10.[44]

Focus group discussions with women as well as interviews with the community (including men and women) confirmed that, in the case of cash transfers, men would most likely be in control of the cash and decide what to spend it on. Women control usually only small amounts of cash they earn through daily *ganyu,* and their strategy is to immediately spend the money on food, to avoid any sort of interference from their husbands. Yet, women cautioned that this may change in the case of larger sums of money.

In the Food and Cash Transfers project (FACT) implemented by Concern Worldwide, most women in male-headed households handed over their money to their husbands, and only in a few rare cases, wasteful consumption (alcohol, womanising) was reported[45]. Yet, it is acknowledged that issues related to intra-household dynamics are difficult to capture, as there is usually a strong interview bias.

The FACT evaluation compared advantages and disadvantages of women handling cash: "*Women generally appear to prioritize household consumption over personal consumption more than some men do. A second advantage is that it protects women and children in polygamous households against being overlooked or neglected in the allocation of transfers, especially if each wife is targeted, rather than targeting male household heads*." On the negative side the report mentions that "*this approach could increase intra-household conflict between husbands and wives, especially in societies where women do not generally control cash and resource allocation decisions within the household are usually made by men.*" The report concludes that "*on balance, though, it seems that women are likely to spend cash transfers more wisely and sensibly than men in many cases, and for this reason we recommend transferring control over cash transfers to women wherever possible*."

In Concern Worldwide's second cash transfer project, the Dowa Emergency Cash Transfer (DECT) project, women were direct cash recipients, which strengthened their role in decision-making. In most

[42] Stephen Devereux, Peter Mvula, Colette Solomon (June 2006)
[43] Stephen Devereux, Peter Mvula, Colette Solomon (June 2006)
[44] PVA (2006)
[45] Food and Cash Transfers, a new approach to predictable food crises. Concern Worldwide (Leaflet)

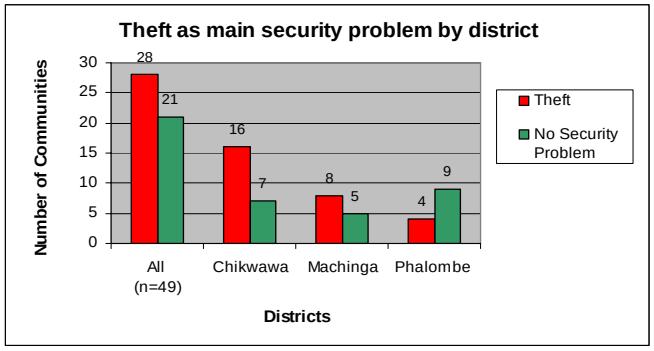
cases men and women jointly decided on how the cash is used. Furthermore, it appears that woman in the household physically kept the cash in order to reduce the chance of it being wasted. Women were also the main recipients of the money in OXFAM's cash transfer project that didn't observe any negative behaviour or major misuse of the cash.

However, according to feedback from women focus groups, domestic violence is common, often related to alcohol and unfaithful behaviour of husbands. There is a risk that cash might fuel these conflicts when either a couple cannot agree on who should control the resource, or men spend the cash on alcohol and women. While evaluations of previous cash transfer projects warns of making generalizations about the sensational accounts of the ''irresponsible spending'' of men[46], the possible risk of increased violence needs to be monitored closely.

6.3 Security

Generally, Malawi is considered a secure country compared to other Southern African countries (UN phase zero). There is no evident threat through political unrest or conflict. Yet, an IFPRI survey in 2005 found that crime was rising and the associated insecurity was causing behavioural change that adversely affected livelihoods. For example, people owned less livestock and stored their harvest indoors instead in their backyard granaries out of fear of theft. Yet, the IFPRI survey was done in a time of scarcity, comparable to the food crises in 2001/2002, when a breakdown of law and order resulted in unprecedented outbreaks of 'vigilante justice': People who were caught stealing maize were mutilated and even killed (Devereux 2002). This suggests that major food crises can undermine social cohesion of communities, and traditional support systems of informal sharing might be replaced by "crime of want".

Figure 25 – Theft as main security problem by district



During the assessment, the communities reported on a number of incidences of theft, mainly of crops, livestock and small household items, such as cooking utensils. Most communities have a 'community police' in place, which acts as a deterrent and helps to keep those incidences under control. They are, however, not equally effective across all locations. Theft appears to be most widespread in Chikwawa (see figure 25), indicating a correlation between food shortages and crime.

Experiences with previous cash pilot were all positive with regard to the secure handling and delivery of cash to beneficiaries. Both the Government Safety net scheme in Mchinji as well the Concern FACT project reported no noteworthy incidences of theft or attacks on beneficiaries, though in both schemes cash was directly handed out to households. Nevertheless, the FACT evaluation recommends delivering potential cash transfers in such a way to minimize any potential risks. Regardless of direct or indirect distributions of cash (bank cards/smartcards), withdrawal of money by either the implementing partner or the beneficiary, should be done at the closest local bank branch/ATM machine possible. The transportation of cash from the capital, as was the case in the FACT pilot, should be avoided.

7. Scenarios and Forecast

As the assessment focus is on informing a possible cash intervention envisaged for next year, the analysis of the current food security situation in the three districts was done with an attempt to also predict how the situation will evolve over the coming 12 months, until the next harvest season.

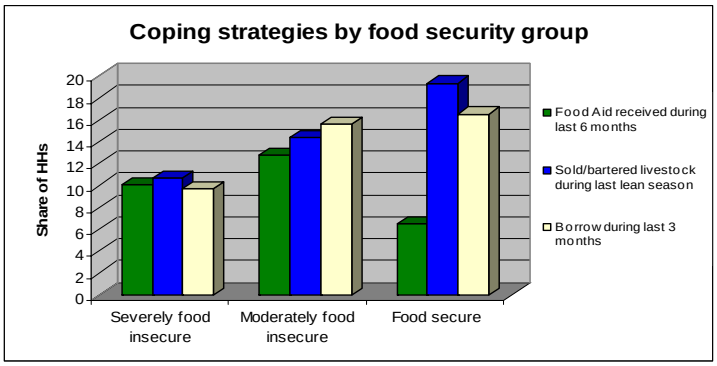
As described in the earlier chapters, the overall food security situation in the three southern districts is mixed and not as bright as the national bumper harvest would imply. Food production compared to last year was clearly worse in Chikwawa, mixed in Machinga and good in Phalombe. Especially Chikwawa is

[46] Same as above

of concern, as many households have started already purchasing food and the number is likely to substantially increase in a couple of months when stocks will be depleted. Winter crops might bring some respite for a minority of households. In food insecure areas affected by floods, where effective demand will remain low and markets are weak, prices may increase to over MK 30 further eroding households' purchasing power. The considerable share of households in the three districts, who were consuming very inadequate diets already in May (15 percent), is worrying, especially if these household are also characterised by limited income sources and assets. The poor food consumption group will probably increase, when households in the borderline group will face increasing difficulties accessing food and reduce their food intake further.

Selling assets, either livestock or household items, is not a real coping option for severely food insecure households whose asset base is already thin (see figure 26). During last lean season only 10 percent sold or bartered livestock. Borrowing usually implies paying back double the amount right after the harvest, thus rather less cash stripped households resort to it. Winter cropping and *ganyu* are possible sources of food, and especially in the last quarter of the year. Yet, only 20 percent of the severely food insecure households are able to grow winter crops and the quantities are usually not large enough to cover significant food gaps. Also, some communities in Chikwawa and Phalombe reported that their land has been washed away by the recent floods and they won't be able to harvest winter crops this year.

Figure 26 – Coping strategies by food security group



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Provided the weather is good and rainfall well distributed over the next summer cropping season, and that prices will provide enough incentive for cash crop farmers to cultivate their land, *ganyu* opportunities may be abundant from the onset of the lean season. Yet, all depends on how many people will seek casual labour and push labour rates down. In Chikwawa, for many, the only options left will be migrating in search of work, selling assets or reducing food intake and expenditures, all with harmful consequences for lives and livelihoods. Concerns that low producer prices may discourage investment by farmers in the forthcoming season have recently been addressed by the government by fixing the buying price for maize at 17 MK/kg. Yet, it remains to be seen whether this rule will be effectively implemented.

Important variables to be considered when predicting changes in household food security are

- Maize prices (local, national and regional)
- Winter harvest
- Weather
- Coping strategies (migration and sale of livestock)
- *Ganyu* rates
- Food availability and maize prices in Mozambique

Maize prices together with the inflation and exchange rate will largely determine the cost efficiency of cash response options, as explained in chapter 8.5.

The latest MVAC report estimates that the ***average*** national price of maize will not exceed MK 30/kg. It is assumed that maize will be readily available in the markets and at ADMARC, and maize prices will only increase at the average inflation rate. Yet, there will be significant variations in the country and also within the three southern districts. In certain parts of Chikwawa, the maize price may rise above 30 MK/kg, while in the other 2 districts it is likely to remain below this threshold. The Government's minimum

purchase price of 17 MK/kg, if effectively applied, will probably contribute to price rises, but also act as incentive for producers.

Next year's summer harvest depends mainly on weather, availability of inputs (especially fertilizer) and on whether prices will provide enough incentive for cash crop farmers to cultivate their land. It is encouraging in this regard that the government plans to continue and expand the TIP programme in 2008, while addressing identified weaknesses such as late delivery of fertilizers to markets and depots and late deliveries of coupons to farmers.

The rate of inflation is forecasted to average 10.5 percent in 2007 and 8.5 percent in 2008[47], which is significantly lower than in previous years. Favourable weather conditions and a bumper harvest helped bringing down inflation. Assuming continued good weather, food inflation is expected to moderate further in 2007. In the case of non-food inflation, currency depreciation and the increase in fuel prices may slow the pace of the fall, particularly given the high dependence on imported consumer goods. (FEWSNET June 2007).

The Economist Intelligence Unit expects a steady depreciation of the kwacha to an average of MK144.1: US$1 in 2007 and MK150.9: US$1 in 2008, as demand for imports remains high against a background of limited external inflows and low foreign-exchange reserves. Typically, over the course of a year the kwacha is strongly influenced by the seasonal pattern of tobacco exports: it depreciates in the first quarter of the year, ahead of the tobacco auctions, and again in the final quarter of the year, after the auctions have closed. Currency fluctuations during the year might be eased with the onset of uranium exports in late 2008, which will provide an important additional source of foreign-currency earnings. Meanwhile, the kwacha is expected to remain vulnerable to sharp falls: potential triggers could be a suspension of donor funding, a downturn in tobacco prices or political uncertainty regarding the president's support in parliament.

8. Response Options and Recommendations

8.1 Estimated Food Security Needs and Cash Transfer Value

It is estimated that 340,000 people or 68,000 households in the three districts are severely food insecure (see table 11). The majority (56 percent) lives in Chikwawa, 26 percent are in Machinga and around 17 percent in Phalombe. The situations is acute for around 60 percent of them, in a sense that they have been severely affected by floods and are worse off than last year. Yet, they were most likely chronically food insecure before and the shock just pushed them further into destitution. The remaining 40 percent of severely food insecure households were not more than usually affected by shocks, but they are equally in need, thus their situation can be considered chronic. Both the chronically and acutely food insecure households require assistance to protect their livelihoods and to ensure adequate food consumption from August/September 2007 onwards at least until the next harvest in April 2008. In addition, their resilience to shocks needs to be strengthened and livelihoods improved to help them out of the vicious cycle of hunger and shocks, which requires concerted and longer term efforts by the government and its partners, including WFP.

Table 11 – Number of food insecure households and individuals by district

	Chikwawa		Phalombe		Machinga		TOTAL
	Individuals	Households	Individuals	Households	Individuals	Households	
Severely food insecure	191,300	38,260	59,900	11,980	89,200	17,840	340,400
Moderately food insecure	136,000	27,200	92,800	18,560	122,600	24,520	351,400
Total	327,300	65,460	152,700	30,540	211,800	42,360	691,800

Another 350,000 people or 70,200 households are moderately food insecure. Their livelihoods are also at risk, though to a lesser extent. They should be assisted through longer term activities aiming at

[47] The Economic Intelligence Unit

building assets (such as irrigation schemes, tree planting) and diversifying livelihoods (livestock, poultry rearing, micro credits), in order to reduce their vulnerability to shocks and improving their lives. Meanwhile, their food security situation should be monitored closely, as they can easily become severely food insecure, if their food access worsens.

While it is difficult to estimate the food gap of the severely food insecure households, the following facts hint towards the risk of a serious shortfall during lean season. The World Bank Poverty Assessment (based on IHS 2) estimated that the rural poor in the South consume on average only around 1,700 kcal, which is 80 percent of the internationally recommended minimum energy intake.

Looking at consumption pattern of the severely food insecure as of May combined with the expected further decline in dietary intake, their food gap may increase to around 30-40 percent of their requirements during lean season. Only by resorting to harmful coping may they be able to eat anything more than cereals every day. In addition, they require cash to cover medical and school expenses, as well as basic household items (soap, clothes, etc.). 17 percent of households have a member, who is chronically ill, whom they have to bring regularly to hospitals. Other important expenditures are milling: The FACT evaluation revealed that cash beneficiaries spent 18 percent of their cash transfer on milling maize.[48]

Figure 27 – Monthly household expenditure by food security group

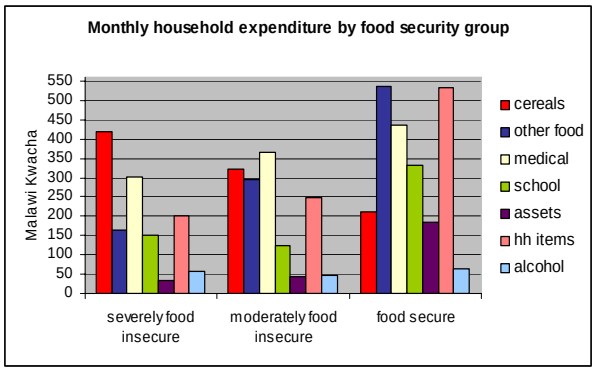


Figure 27 shows monthly household expenditures of the three different food security groups during the harvest period. The already small amounts the severely food insecure spent on essential non food items will be further reduced during lean season, when food will account for more than half of total expenses. In the FACT project, beneficiaries' spending on food increased between January and February (from 63 percent to 69 percent), but fell back sharply in March (to 45 percent), when more FACT cash was spent on non-food items than staple food[49].

To calculate the size of the cash transfer both the food security related needs and the Food-for- Asset ration have to be considered. As the cash transfer is not only addressing a food gap but it also meant to be remuneration for labour, local wage rates are another factor in the equation. As mentioned above, the food gap in January – April may amount to 700-850 kcal person per day.

The food basket provided in Food-for-Asset activities varies and is determined based on local needs and project duration and other factors, but has in the past comprised mainly the following types and quantities of food items, 50 kg of maize, 5 kg of pulses and 2 l oil per households and month (see table 12). Assuming a household size of 5, this ration covers 66 percent of the recommended energy intake, 76 percent of the protein and 67 percent of the fat requirements. The local market value of such a food ration is estimated to be between 1,700 MK and 2,200 MK at the beginning 2008. Assuming a ganyu rate of MK 200/day, a household would need to work around ten days to earn this amount. Usually, foods for asset activities are implemented in a flexible way that allows households to still tend to their fields, while participating at these schemes.

The average FFA ration of 1,400 kcal per person and day is considered appropriate to protect livelihoods (assets, education, health etc.) and ensure adequate consumption of severely food insecure households. For the proposed pilot, it is recommended to provide cash transfer that equals the local market value of this food ration. This will allow households to cover their food gap as well as other basic food security related needs, such as health, milling etc.

[48] Stephen Devereux , Peter Mvula, Colette Solomon (June 2006)
[49] Stephen Devereux , Peter Mvula, Colette Solomon (June 2006)

Table 12 – Average household food ration in WFP FFW schemes

	Monthly household ration in kg	Daily ration in grams/person	Kcal
Maize	50	333	1,166
Pulses	5	33	111
oil	2	13	115
Total	57	379	1,392

8.2 Cash, Food or a Mix of both?

Leaving the question of market functioning aside for a moment, the decision on the right resource transfer depends on a number of considerations related to households' priorities and expenditure pattern: Poor people's access to cash is limited, as even *ganyu* is often paid in kind. Hence, there is a risk that if a full food basket is provided, households either sell parts of the food ration, most likely oil first and then pulses, and compromise on their dietary intake, or reduce their education, health etc. expenses with an equally detrimental and long term impact on their lives.

A mix of food and cash might be more appropriate as it covers the various needs of households and might prevent uneconomic sales of food aid. Yet, administrative costs of delivering two different commodities will be high and would thus need very good justification. If only cash is given, households might buy maize, some cassava, vegetables and pulses, but most likely not much oil. It is difficult to predict to what extent households will invest cash into diversifying their meals. Beneficiaries of the FACT project[50] bought relish – vegetables or dried fish eaten with maize or cassava porridge *(nsima)* as the main meal throughout Malawi. Depending on the quantities of the different food items this may very well constitute an adequate diet or not. There is no sound evidence so far in Malawi on the differential impact of cash and food on household's dietary intake. Conclusion from evaluations of different pilots, especially FACT and DECT, are extremely insightful, but did not have control groups and did not measure the actual food intake.

Apart from possible differential impact on food consumption, the risk of market failure has to be taken into the equation. A combination of food and cash can help minimising the risk of supply shortages to households. But, as said earlier, this contingency comes at high costs.

The other option is a temporal sequencing of cash and food, namely food during lean season and cash during and after harvest. Distributing food during lean season makes sense in areas where food prices climb to levels where households' food access is widely compromised, where it becomes cheaper to distribute food than cash, without having a negative impact on markets, or, in locations where staple food items are just not available anymore. In the latter scenario, the possible response by traders to a cash injection into the local economy has to be taken into account, which will depend a lot on the size and duration of the cash transfer.

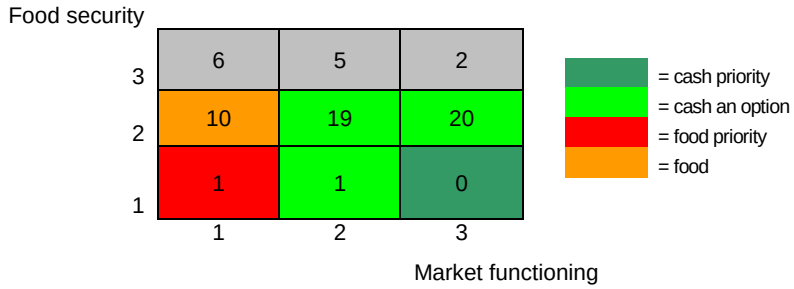
To decide where in the three districts cash or food is more appropriate, areas have been identified where levels of food insecurity are likely to be very high, while at the same time markets function sufficiently well. This was done by combining the food security index with the market index and applying it to the 64 surveyed communities. The results can be seen in the map in Annex I. A word of caution: As the survey is only representative at district level, these communities are only hinting towards areas or TAs where similar communities might be found. No quantitative extrapolation can be done from this exercise.

As figure 28 shows, none of the communities fall into this dark green quadrant at the right bottom, which would be the ideal location for a cash project: high levels of food insecurity (1) and also access to well functioning markets (3). Since food security and markets are closely correlated, this result is not so surprising. The second best locations for a cash pilot are the light green quadrants, namely where

[50] The FACT project was designed to provide 50% of beneficiary households' food needs over the period January through April 2006; 25% in the form of food and 25% in the form of cash to buy food.

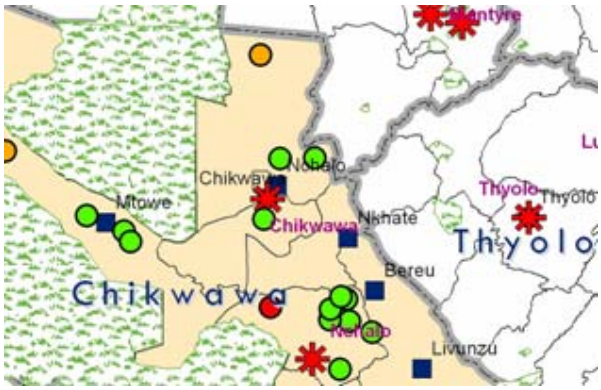
communities are on average severely or moderately food insecure, and markets are functioning moderately well or well. 40 communities fall in to these three quadrants.

Figure 28 – Number of communities by level of food security and market functioning



The communities have been mapped using the above colour codes to get better visual of their locations. The map in Annex I shows that food insecurity (red, green and orange dots) appears to be spread all over the three districts. But the green coloured dots, which indicate a combination of food insecurity and - at least moderately - functioning markets, appear to be more concentrated in areas close to main markets. For the cash pilot the proximity of a branch of a Bank branch has been taken into account, as the direct delivery through banks seems to emerge as the most viable option

Figure 29 – Map indicating locations of markets (blue quadrants), Malawi Savings Bank Branches (red stars) and communities (dots) by level of market functioning and food insecurity.



As the number of households that can be covered under a cash scheme is limited by a corporate US$ 3 million ceiling, it was agreed to focus only on selected TA in a maximum of 2 districts. In Chikwawa, the food security needs are largest, while in Machinga market and financial infrastructure is reasonable well developed. Phalombe was left out eventually, as the food security situation looks best there, while the financial infrastructure is worst.

In Chikwawa, the following five TAs are recommended for a cash-for-asset scheme: Lundu, Maseya, Katunga, Makhwira and Kasisi. These are highly vulnerable areas, which have been identified by the local government as priority areas for tree planting and irrigation schemes. They are close to major market places (blue quadrants on the map), including Chikwawa Boma, and Thyolo district, for where traders bring in food supplies. A branch of the Malawi Savings Bank, either in Nchalo or Chikwawa (red stars), is within a 15 km range for the large majority of households. Only the north of Kasisi is further away (see map below). For the same reasons the two TAs Liwonde and Chamba are recommended for a cash intervention. The two bank branches in 15-20 km reach of these TAs are in Liwonde city and Ntaja. The risk of market failure in these places that are close to major trading centres is considered very low.

The entire population of these 7 TAs comprises roughly 272,000 people (see table 13). In Machinga, 21 percent of the population is estimated to be severely food insecure, while the share is 41 percent in Chikwawa; in total around 100,000 people or 20,000 households in the 7 TAs require assistance. However, one fifth of them is labour constraint and might have difficulties in participating at Cash-for-Asset activities.

Table 13 – Number of food insecure households and individuals by TA

District	TA	Population in 2008	Severely food insecure Individuals	Households
Machinga	Liwonde	76,558	19,905	3,981
	Chamba	19,831	5,156	1,031
Sub-total		*76,558*	*19,905*	*3,981*
Chikwawa	Lundu	51,013	20,915	4,183
	Maseya	23,059	9,454	1,891
	Kasisi	30,434	12,478	2,496
	Makhwira	70,826	29,039	5,808
	Katunga	19,715	8,083	1,617
Sub-total		*195,048*	*79,970*	*15,994*
TOTAL	**7 TA**	**271,606**	**99,875**	**19,975**

8.3 Targeting

Many of the surveyed communities participated at WFP Food for Work schemes in the past. As needs were greater than available resources targeting was not done purely on self selection of FFW participants, but through a mix of administrative[51] and community based targeting. WFP's various Cooperating Partners that were implementing the FFW schemes explained to the community members the eligibility criteria, set an upper ceiling for the number of households to be included in the scheme (a certain percentage of the overall village population) and then asked community representatives to identify households accordingly. The criteria consisted mainly of socio-economic characteristics such female headed households, households with chronically ill members, elderly or orphans, and were agreed upon and commonly applied by JEFAP members in Malawi.[52]

During focus group discussions people mostly agreed on the criteria, but complained about large exclusion errors, as only few households could participate. Also, problems with the application of the criteria were repeatedly mentioned. While Village Relief Committees (VRCs) both at TA and Village levels were formed, often the final selection was left to the chiefs; many of whom tended to be biased towards own relatives and friends irrespective of their food security level.

Almost all food recipients reported to have shared their ration with needy friend and neighbours in the same community, a common tradition in Malawian villages that makes individual/ household targeting less effective.

It is recommended to review and further fine tune the current targeting criteria and enforcing their application through closer monitoring and feedback sessions with beneficiaries. The assessment findings confirm that a large share of food insecure households is headed by females and/or elderly, and has members who are chronically ill female. However, taking care of orphans does not appear to be correlated with increased household vulnerability (see chapter 5.5.). Differences between severely food insecure and moderately food insecure households are negligible with regard to the above criteria. To identify the worst off, it is suggested to consider additional eligibility criteria such as:

- ➔ No cash crops
- ➔ No winter crops
- ➔ High dependence on *ganyu* as income source
- ➔ Small landholdings in lowland areas (more affected by floods)

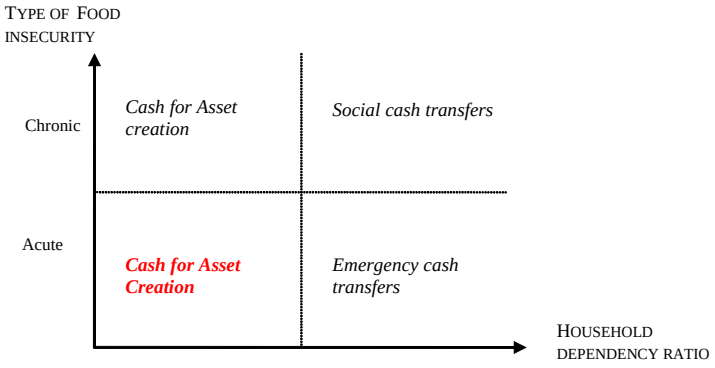
[51] Administrative targeting is defined in the Policy Paper on Targeting in Emergencies January 2006 as follows: Households or Individuals are selected by agencies or people external to the community using standard observable criteria or indicators such as nutrition status or objective socio-economic characteristics.

[52] The Joint Emergency Food Aid Programme (JEFAP) was set up in 2002/2003 as a principal food aid component of the 2002/2003 humanitarian response in Malawi. JEFAP was a collaboration by the Government of Malawi, donor organizations, the World Food Programme and the NGO consortium with the objective of providing general food distributions to the most vulnerable and food insecure households in Malawi in a transparent and accountable way. Through the JEFAP, a manual was developed in line with the Sphere standards to provide guidance for those involved in the food aid programme (JEFAP, 2003).

There is a significant difference between food insecure and food secure with regard to labour constraints. Around one fourth of the food insecure households have either no adult at all, no adult able to work, or a high dependency ratio of more than 3 dependants per able bodied adult. The respective share amongst food secure households is less than 10 percent.

Most food insecure households are indeed characterised by having a considerable care burden put on the shoulders of women and elderly, who are physically not the strongest. This needs to be taken into account when targeting these households. Food or Cash for Work activities should be designed in a way that allow also the more labour constraint households to participate, by e.g. involving them for example in the organisation or monitoring of activities. Daily and weekly work schedules should be flexible and allow part time work, to enable households to tend to their own fields.

Figure 30 – Recommended interventions for different groups of food insecure households



Moreover, it is expected that at least in Machinga, the government Safety Net Scheme will provide cash transfers to the households that are truly unable to participate at CFW or FFW schemes. Unconditional cash transfers are recommended for severely labour constraints households in the flood affected communities of Chikwawa. Figure 30 shows recommended interventions for different groups of food insecure households.

8.4 Cash Delivery Mechanism

Several different cash delivery mechanisms were considered, two of which were or are currently tried out in the Malawian context.

The Government's social cash transfer pilot in Mchinji as well as Concern's FACT project distributed the cash directly to beneficiaries in envelopes. The evaluation of the FACT project cautions that individually labelling thousands of individual envelopes and stuffing them with money every month occupied all of Concern Malawi's Finance staff for several weeks.

The DECT project applied a more innovative approach using ***smart cards*** (e.g. Malswitch), which were issued to beneficiaries who would then be entitled to collect cash. Concern combined the use of smart cards with biometrics and mobile banking. In the end, the advantages of electronic payments were however not fully exploited, and simple hand outs would have been more cost efficient.

The third option is the 'push' approach, whereby beneficiaries receive bank accounts and are asked to collect their money at the next bank branch. No agency has tried out this delivery mechanism yet. The Malawi Savings Bank has 40 outlets all over Malawi, which allows them to offer a maximum of 30 km radius.

The Malawi Savings Bank offers smart cards with improved functionality through a multipurpose chip. The card is linked to a bank account, with an annual interest rate on savings of 7 percent. Beneficiaries receive a personal pin code together with the card, which can be equipped with a photograph. For better identification, also biometrical information could be uploaded. Establishing bank accounts of beneficiaries

can have various positive secondary effects, such as bringing households closer to financial infrastructure, potential add-ons such as micro-credits and savings.

The table below compares advantages (***) and disadvantages (*) of the first three options, with regard to their coverage, scalability, costs, user friendliness, security etc.

Table 14 – Comparison of advantages (***) and disadvantages(*) of three cash delivery options

Cash delivery options	Bank account	Direct cash delivery	Mobile banking & SMART cards
Geographic coverage	*	***	***
Scalability	*	**	**
Transaction costs	**	*	***
User friendliness (service quality, integrity)	***	**	**
Accounting, reporting	***	**	**
Potential add ons (e.g. micro credits, savings)	***	*	**
Security for beneficiaries	***	**	**
Security for delivering agency	***	*	**
Risk of fraud, leakages	***	*	**

Alternatively, Farmer's World outlets could be used. The company came recently under new ownership and management and has an even larger network of outlets that are equipped with ATM machines. The aim of the company is providing inputs to farmers at their door step through their 113 distribution outlets. In addition, the company attempts to connect farmers to markets in the country's urban manufacturing facilities and export markets. Farmers' World has also an arrangement with Malawi Rural Finance Company (MRFC) to facilitate access of farmers to loans.[53] Hence, choosing Farmers World for cash delivery might entail possible additional benefits to the beneficiaries. More investigation is needed, as the mission was not able to collect sufficient information about this option.

8.5 Cost efficiency and Contingency Plans

An attempt was made to compare costs to WFP of delivering cash with costs of delivering food. It was assumed that the food basket will comprise 57 kg of maize, pulses and oil, and that the cash transfer value would equal the local market value of this basket. The cost calculations are based on the WFP cost structure. That means overhead costs were calculated as 7 percent of the total costs, rates usually calculated by Metric tons - such as Direct Support Costs (DSC) - were converted into cost per cash transfer value. Logistics costs (LTSH) were not considered anymore. Other Direct Operational Cost (ODOC, which usually comprise costs for food distribution, monitoring, targeting, community sensitization etc., including costs for cooperating partners, were reduced by the amount usually paid to cooperating partners for food distribution. For the cash delivery, it was assumed that bank accounts and smart cards would be used instead.

Several costs scenarios are possible, and below is just one example to indicate potential cost differences of cash and food schemes under certain conditions

In scenario 1, a maize price of 25 MK/kg, an exchange rate of 150 MK/US$ and an average project duration of 6 months were assumed (see table 15). Given this, it would cost WFP US$ 19 per household, to deliver a cash transfer amount of 1,900 MK per month. In other words, it costs 50 US cents to deliver US$ 1.

[53] University of Malawi (JUNE 2007)

Table 15 – Assumptions made on costs of cash transfers to WFP

Scenario 1		
Maize price per kg	25.00	MK
HH monthly cash transfer	1,900.00	MK
Bank Account	2,000.00	MK
DSC	23.40	per 33,333 MK transfer value
ODOC	12.24	per 33,333 MK transfer
Bank fees	30.00	MK per month
Smart card	600.00	MK per card
ISC	0.07	of total direct costs
Inflation	10%	
Exchange rate in 2008	150.00	
Average project duration	6.00	months

It is important to note though that these costs include a relatively large one time investment of 2,600 MK (US$ 17.33) into establishing a bank account and buying a smart card. This amount has been fully depreciated over a short period of 6 months (project period), and thus constitutes 16 percent of the overall monthly costs. The bank account and the smart cards are however valuable and long term household assets that can have longer term benefits and could be used for other interventions such as micro credit and savings schemes. In this scenario, it is roughly 15 percent more expensive to deliver food.

Cash transfer	cost in % of total	per hh/month in US$
cash transfer	67%	12.67
bank account	12%	2.22
DSC	7%	1.33
ODOC	4%	0.70
Bank fees	1%	0.20
Smart card	4%	0.67
ISC	7%	1.25
Total cost per hh/month		19.03

If the maize price reaches 33 MK, with all other variables being constant, cost of delivering cash or food would be more or less the same. Prices are unlikely to shoot much further up, except in the more remote areas of Chikwawa where cash transfers are not considered, as the price at which the government – through ADMARC - buys maize from traders for export to Mozambique and Zimbabwe has been set at 27 MK/kg. Traders are expected to divert their food to local consumers instead of selling to ADMARC, if the local market promises larger profit margins.

Table 16 – Average Costs to WFP of delivering monthly food rations in Malawi

Food basket	*US$/MT*	*ration in kg/household/month*	*monthly ration/hh in US$*
Maize	170.00	50.00	8.50
vegetable oil	950.00	2.00	1.90
pulses	400.00	5.00	2.00
average/total	304.00	57.00	12.40
external transport	4.90		0.28
LTSH	84.00		4.79
DSC	23.40		1.33
ODOC	30.60		1.74
ISC	25.40		1.45
assoc. costs	168.30		9.59
Total	472.30		21.99

A contingency should be set aside in the budget to cover an increase in maize price beyond the expected maximum of 30 MK/kg in the identified areas. The difference in overall project cost between a maize price of 25 MK/kg and 40 MK/kg is 28 percent. The exact amount of this contingency should be determined when reviewing prices during project design.

8.9 Recommendations

1. **Implement cash for asset intervention in 7 TAs in Machinga (Liwonde and Chamba) and Chikwawa (Lundu, Maseya, Kasisi, Makhwira and Katunga) covering around 80,000 severely food insecure people or around 16,000 households, who are not labour constrained.** The cash for asset activities should be implemented over a period of six month between November 2007 and April 2008. Ideally, activities should restart later in the year 2008, around September/October. The focus of the intervention should be on creating quality assets that improve livelihoods of people in the long run, while tiding households over a period where their access to food is seriously compromised. Tree planting, soil conservation, irrigation schemes etc. are all measures that will address food insecurity, while increasing resilience to further shocks[54].

2. **Provide emergency cash transfers to the roughly 5,000 labour constraint households (20,000 individuals) in flood affected communities targeted for the Cash pilot**. This assistance should be given for six to seven months between October/November 2007 and April 2008. It is hoped that the next harvest will improve their situation. If they are chronically food insecure, they should become beneficiaries of the government social safety net schemes, once it will be expanded to Chikwawa.

3. **Review and further fine tune the current targeting criteria used in FFW schemes**, and apply then the same criteria for the pilot cash scheme. The assessment findings confirm that a large share of food insecure households is headed by females and/or elderly, and has members who are chronically ill. Yet, taking care of orphans does not appear to be correlated with increased household vulnerability, and thus should be dropped. Additional eligibility criteria should be considered such as:
    - No cash crops
    - No winter crops
    - High dependence on *ganyu* as income source
    - Small landholdings in lowland areas (more affected by floods)

    Design Food or Cash for Work activities in a way that allow also the more labour constraint households to participate, by e.g. involving them in the organisation or monitoring of activities. Daily and weekly work schedules should be flexible and allow part time work, to enable households to tend to their own fields.

4. The recommended cash scheme covers less than one third of the severely food insecure population and none of the moderately food insecure households in the three districts. **Thus it is of paramount importance that the remaining needs of 590,000 food insecure people are covered through other interventions**. The new PRRO (2008-2010) will be implemented in Machinga and Chikwawa, and encompasses food based intervention such as Mother and Child Health, School Feeding, nutritional support for households with chronically ill people. These interventions will assist food insecure households with special nutritional needs continuously over a period of three years and should focus on the chronically food insecure population. Food for asset intervention should concentrate on areas where markets are weak. These areas could be identified by using the market index and adjusting it, if required.

5. **Set aside a contingency in the budget** to cover an increase in maize price beyond the expected maximum of 30 MK/kg in the identified areas. The exact amount of this contingency should be determined when reviewing prices during project design.

[54] WFP has long experience with food for asset projects in Malawi and valuable community assets have been built/rehabilitated. For example: 577 km of roads were rehabilitated; 600 Indian tanks were dug for water harvesting; 377 ha of small-scale irrigation was established; 34 fish ponds were also dug as part of integrated rural livelihoods and 1 million trees were planted to rehabilitate degraded lands. WFP and FAO worked together with Government to rehabilitate irrigation schemes in areas affected by the drought.

6. **Calculate the cash transfer by calculating the equivalent of a normal food for work ration, on the basis of local market prices (and adjusted by household size)[55]. The average ratio envisaged under the new PRRO covers roughly 1,400 kcal.** As the food gap is less than 70 percent, households will be able to have a more adequate and diversified diet, while still covering their most urgent non food needs. The resource transfer should be adjusted every month to changes in maize prices.

7. **Establish bank accounts for each beneficiary household, if possible in the name of women. Deliver cash through bank branches or 'Farmers World' outlets (push approach).** The cash should be transferred to the beneficiaries' bank accounts monthly. This frequency is suggested as the cash amount will be large enough for households to purchase food in bulk, which is cheaper than buying small amounts, and it keeps transaction costs for WFP as well as for beneficiaries at a manageable level.

8. **Establish partnerships with other agencies and create synergies of activities at field level,** for example with FAO's Sustainable Food Security and Livelihoods Project, which aims at small-scale irrigation, enhanced water control and watershed development. The FAO project is already ongoing in Machinga and is planned to start soon in Chikwawa. Activities should also be closely coordinated with the MASAF project, which is active in both districts and focussed on road construction, afforestation and environment rehabilitation. In Machinga, the government plans to roll out social cash transfer schemes that started off as a pilot in Mchinji to four TAs, including Liwonde. This scheme is designed to deliver regular and reliable grants to "ultra poor" households, who are labour constraint, and could thus cover the roughly 800 severely food insecure and labour constraint households, who won't be able to benefit from cash for asset scheme. Obviously, areas and people identified as highly vulnerable should also be targeted by the other WFP interventions such as school feeding, MCH etc.

9. **When selecting the final project area (communities), the market and food security situation in the selected 6 TAs should be reviewed** with a focus on price trends, availability of staple food in the local markets and at ADMARC depots, the impact of winter crops as well as *ganyu* rates and opportunities. Low *ganyu* rates may indicate a shortage of labour opportunities and a place where Cash for Work activities might be appropriate.

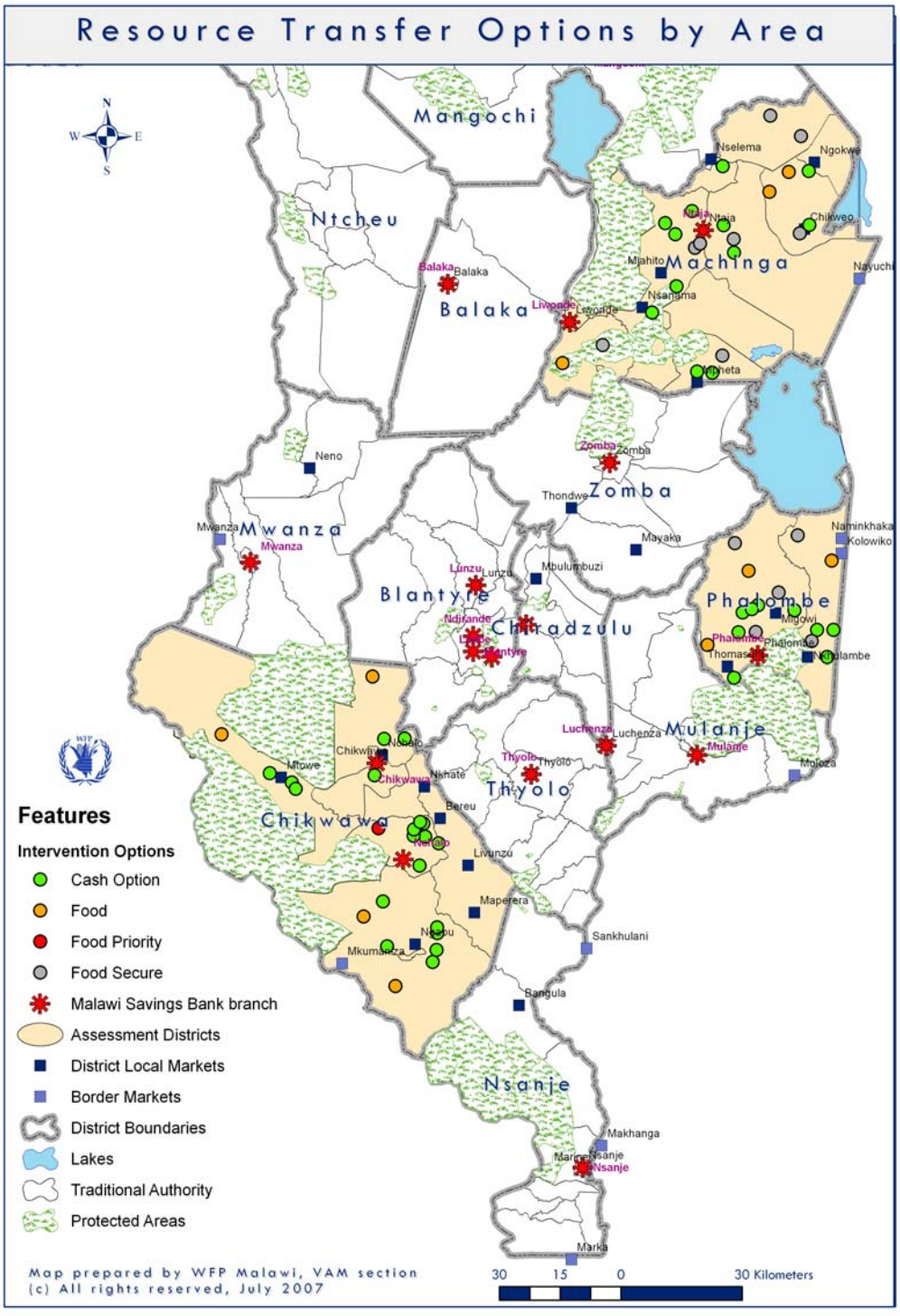
10. **Set up a simple monthly market monitoring system** to inform about prices and availability of basic food items in the local market places visited by the beneficiary households, and *ganyu* rates and opportunities in the vicinity of the target communities. This system should be part of WFP's general monitoring system.

11. **Incorporate market indicators into WFP's bi annually Community Household Survey (CHS)** to identify locations within WFP PRRO intervention area where cash may be more appropriate than food.

12. **Conduct a baseline survey in October/November prior to the start of the project and a follow-up survey in May.** To compare cost-effectiveness of cash and food and to control for seasonality, a control group should be chosen amongst the food for asset beneficiaries, and a double difference method applied. Important topics to be evaluated include:
    a. Differential impact of food and cash on household food consumption, i.e. quality and quantity of the diet, and on livelihoods (expenditure pattern, savings, sharing with friends).
    b. Positive secondary effects of cash on markets, including labour markets (i.e. multiplier), and of bank accounts on households' livelihoods.
    c. Gender related differences in control over resources, decision making, and differences in household dynamics (quarrels) between cash and food recipients.
    d. Differences in management and implementation of cash and food schemes and organisational ability to adjust.

[55] As it is envisaged to evaluate the differential impact of food and cash transfers on household food consumption, the adjustment of the cash transfer amount to the household size might not be advisable. Since the food ration will have to remain the same for all households irrespective of the number of members, due to operational constraints, the outcomes of the CFW scheme wouldn't be comparable anymore with the outcomes of FFW.

ANNEX I - Map: Resource Transfer Options by Area



ANNEX II - Assessment Mission Members

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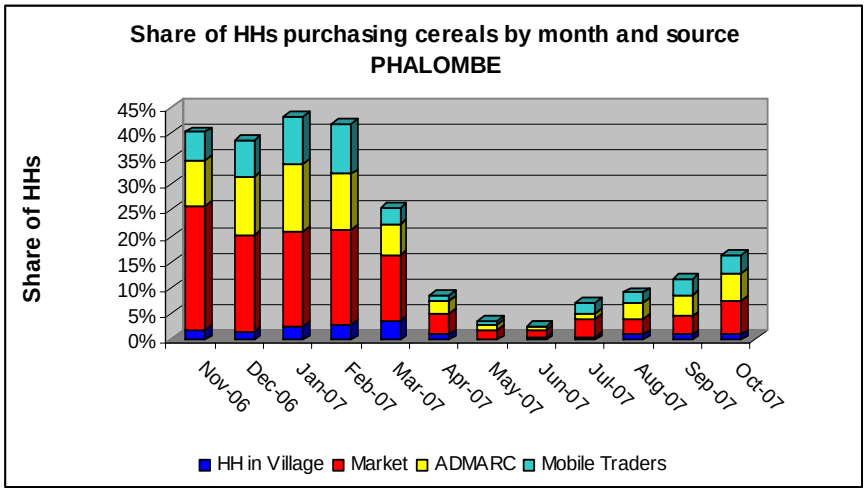
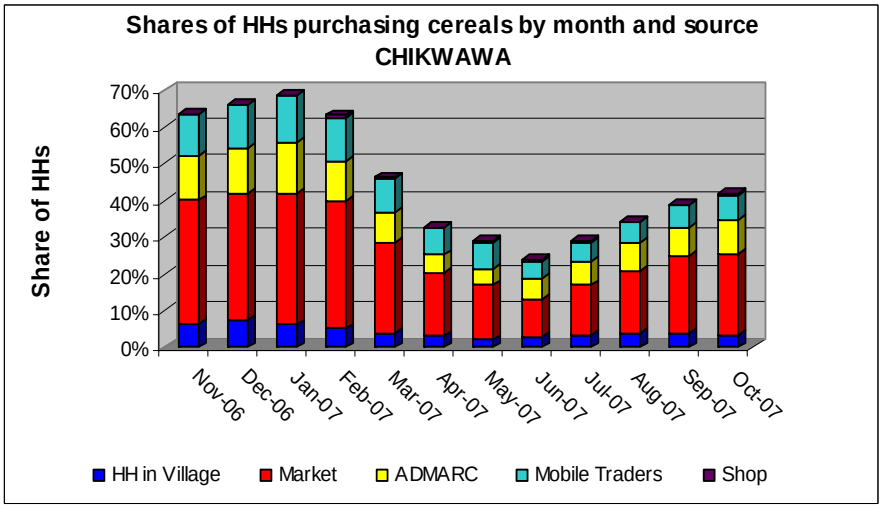
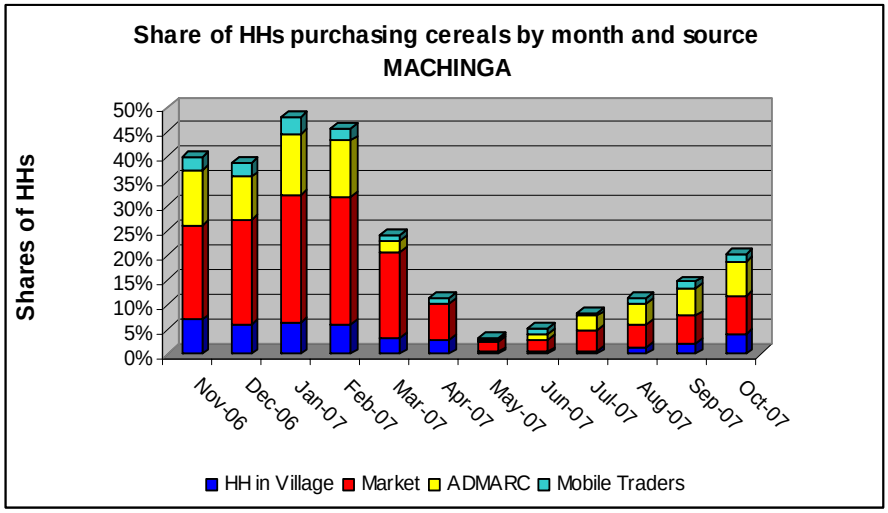
ANNEX IV - Sample Universe

Districts	Traditional Authorities	Population Census 1998	Population estimate 2005
Machinga	13	369,614	440,492
	Liwonde	63,798	
	Sitola	31,488	
	Kawinga	84,648	
	Chamba	16,526	
	Mposa	17,655	
	Mlomba	28,045	
	Chikweo	39,108	
	Ngokwe	20,476	
	Chiwalo	12,101	
	Nyambi	38,593	
	Liwonde NP	206	
	Machinga Boma	1,269	
	Liwonde Town	15,701	
Phalombe	3	231,990	311,250
	Mkhumba	152,909	
	Nazombe	76,503	
	Phalombe Boma	2,578	
Chikwawa	11	356,682	463,888
	Ngabu	114,336	
	Lundu	42,511	
	Chapananga	64,993	
	Maseya	19,216	
	Katunga	16,429	
	Kasisi	25,362	
	Makhwira	59,022	
	Lengwe NP	304	
	Majete GR-Chikwawa	59	
	Chikwawa Boma	7,474	
	Ngabu Urban	6,976	
Total	27		1,215,630

ANNEX V - Sources of Cereal Purchases in the Three Districts

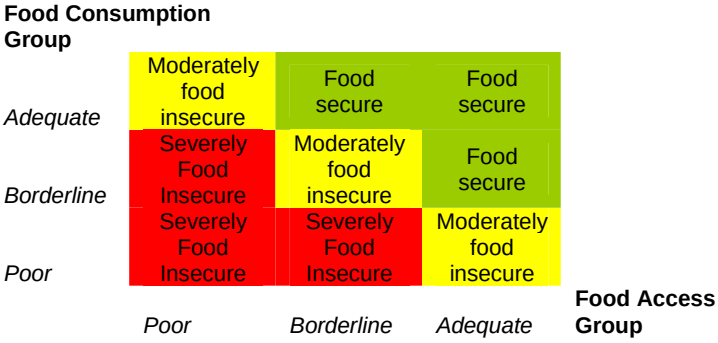






ANNEX VI - Food Security Index

A food security index was created to categorize households into three food security groups, i.e. severely food insecure, moderately food insecure and food secure.



The food security level is calculated based on households' **food consumption patterns** and **food access** (including income /livelihood source, type and number of household and livestock assets, time stocks last).

A. Food Consumption

To determine food consumption of households, food frequency and diet diversity were measured, applying weights and cut-offs as used in the ODJ region. Food consumption is used as a proxy for household access to food and can be measured in terms of quantity (Kcal intake) or quality (diversity) or both. The assumption is that the more food items a household consumes from the six food groups (carbohydrates, animal products, oils and fats, fruits and vegetable, legumes and oilseeds, tubers and roots.) and the higher the frequency of consumption of these items, the better is food consumption and caloric intake. Ideally, a household should consume at least one food item from each main food group every day seven days a week.

Food frequency and diet diversity of households is captured by looking at the combination of the different food items consumed during a 7-day recall period. The number of days per week each food item has been consumed is added up and multiplied by a specific weight, which is given to each food item in order to reflect the varying nutritious values. The weights are shown below:

	FOOD ITEMS	Food groups	Weight
1	Maize , maize porridge, rice, sorghum, millet pasta, bread and other cereals	Cereals and Tubers	2
2	Cassava, potatoes and sweet potatoes		
3	Beans. Peas, groundnuts and cashew nuts	Pulses	3
4	CSB	CSB	2.5
5	Vegetables, relish and leaves	Vegetables	1
6	Fruits	Fruit	1
7	Beef, goat, poultry, pork, eggs and fish	Meat and fish	4
8	Milk yogurt and other diary	Milk	4
9	Sugar and sugar products	Sugar	0.5
10	Oils, fats and butter	Oil	0.5

Food Consumption Groups Cut offs	
Poor food consumption	0.5 - 21
Moderately food consumption	21.5 - 34.5
Adequate food consumption	35+

As a next step, cut-offs are used to divide households into three food consumption groups, poor, moderate and adequate. For example, a household that consumes seven days cereals (14 scores), 3 days pulses (9 scores), four days vegetables (4 scores) and twice oil (1 score) in one week has a score of 27, and therefore moderate food consumption.

B. Food access

Food Access (income source, HH & livestock assets, stocks)	
Poor	3 - 4 scores
Borderline	5 - 7 scores
Good	8 - 9 scores

Households' access to food is composed of

- ➔ **income/livelihood sources** of households,
- ➔ **number of months their cereal stocks last**
- ➔ **type and number of assets** (including livestock)

For all three indicator cut-offs were created to translate indicators into three scores, i.e. three indicators times three scores gives a maximum of 9 and a minimum of 3 scores a households can have. This method allowed weighing the three indicators equally. At the end, each household had scores from 3 – 9, and using the cut-offs in the table the final three food access groups were established: Poor, borderline and good food access.

No. of months cereal stocks last	
Poor (1 score)	< 5
Borderline (2 scores)	5 - 9
Good (3 scores)	> 9

The cut-offs for the **cereal stocks** are shown in the table: For example, a household with less than five month stocks gets one score, while a households that has 10 months stocks gets three scores.

The number and types of **assets** are a proxy indicator of how poor or rich a household may be. A distinction was made between high and low value assets which were weighted in the following way:

High Value HH Assets *2 scores*	Low Value HH Assets *1 score*
TV	Chair
Radio	Table
Refrigerator	Bed
Mobile phone	Watering can
Ox Cart	Axe
Tractor	Sickle
Bicycle	Panga
Sewing	Mortar
Canoes	Hoe
	Pail and Tins
	Hand Mill
	Plough
	Fishing nets

High Value Livstock *3 scores*	Low Value Livestock *1 & 2 scores*
Draught cattle	Donkey & Horses (2)
Cattle	Sheep & goats (2)
	Pigs (2)
	Poultry & rabbits (1)

Assets were added up by household, using the above weights. Combining the number and type of assets, households arrive at an overall asset score using the cut-offs shown below:

Combined household & livestock assets	
Poor (1 score)	< 9
Borderline (2 scores)	9 - 18
Good (3 scores)	> 18

Income source	Category
Food Assistance/Gifts Petty Trade (firewood sales, etc.) Brewing Casual Labour (ganyu)	Poor (1)
Food crop production/sales Remittances Livestock production/sales	Borderline (2)
Formal salary/wages Cash crop production/sales Fishing Small business	Good (3)

Income sources were divided into three groups (poor, average and good) on the basis of how sustainable these sources are throughout the year and how well they are remunerated. Also, differences in consumption pattern of households with specific income sources were taken into consideration:

Annex VII - Market Index

Final Market Scores	Total Scores	No. of Comm.
<7	1	17
7-8	2	25
>8	3	22

Indicators were derived from both, the community interviews and the household questionnaires. The latter was aggregated at the community level. Variables included in the market index have been converted into scores, the cut-offs of which are mainly empirical, ensuring balanced repartition. Final market scores are an aggregation of the scores of the scores of the indicators as listed below: Potential cereal demand, reliance on markets, Risk of market distortion (ADMARC presence), market access and cereal prices.

1. Cereal demand

Demand (number of months)	Scores	No. of Comm.
>1000	3	21
500 - 1000	2	19
<500	1	23

Markets are functioning only when there is effective demand. As a proxy indicator for demand, the population of the community has been multiplied by 12 months minus the number of months stocks will last for consumption. This results in a number of months of potential market demand for cereals in the community.

2. Reliance on Markets

Reliance on markets (no. of months)	Scores	No. of Comm.
>100	3	15
0-100	2	26
0	1	23

Reliance on markets tries to capture the functioning of markets during lean season. As a proxy indicator the average number of months that households go to the market in the lean season has been multiplied with the number of households in the community. Frequent market purchase by households during lean season is considered an indication for reliable maize supply.

3. Market Distortion Risk

Market distortion risks	Scores	No. of Comm.
Don't buy at ADMARC	3	19
Sometimes buys at ADMARC	2	15
Buys at ADMARC	1	29

The presence of ADMARC tends to indicate a lack of markets in the area, but presents also a disincentive for the private sector to engage in this area. The risk of market distortion is calculated based on how frequent households purchased at ADMARC over a period of 6 months.

4. Market Access

Adjusted distance to markets (km)	**Scores**	**No. of Comm.**
<5	3	28
5-10	2	16
>10	1	19

Households' access to market is calculated using the distance to the closest markets in km adjusted by the road accessibility during the rainy season:

5. Cereal Prices

Price range (MKW)	**Scores**	**No. of Comm.**
<10	3	18
10-15	2	20
>15	1	25

Current cereal prices for 1 kg maize were indicated by the communities themselves and are categorized into three groups applying the cut-offs indicated in the table.

ANNEX VIII - Relevant Activities by other Organizations in Malawi

Past, ongoing and planned (cash-transfer related) activities in Malawi by WFP and others

District	Organization	Title	Focus	Timing	# of benef.
Dedza *central)*	Concern Universal	Safety Net Cash Transfer		2001-2002	
Thyolo *(south)*	OXFAM	Cash Transfer		Nov 05 - Mar 06	4,000 to 6,000
Mchinji *(central)*	UNICEF/Gov	Social Cash Transfer	Part of Social Protection Programme	Jun 06 - Feb 07	
Dowa (central)	Concern World Wide	Cash Transfer		Nov 06 to Apr 07	11,000 HH
All Districts	MASAF/Gov	Public Works Programme	Road rehab, afforestation, etc.	Ongoing	
Balaka	**FAO**	Sustainable FS & Livelihood Projects	water control, sust. use of environment	Ongoing	
	MASAF	Public Works Programme	(Cash For Work): roads, afforestation environment rehabilitation	Ongoing	
	WFP	FFA, Nutrition, HIV/AIDS, Relief	FFA: Rehab environment, diversifying rural livelihoods, income opportunities	2008-2010	
Machinga	**FAO**	Sustainable FS & Livelihood Projects	water control, sust. Use of environment	Ongoing	
	MASAF	Public Works Programme (Cash For Work): roads, afforestation environment rehabilitation	(Cash For Work): roads, afforestation environment rehabilitation	Ongoing	
	WFP	FFA, Nutrition, HIV/AIDS, Relief	FFA: Rehab environment, diversifying rural livelihoods, income opportunities	2008-2010	
Chikwawa	**WFP**	Cash for Asset Pilot	Irrigation projects	Jun-Nov 2005	7.746 (incl. Nsanje)
	MASAF	Public Works Programme (Cash For Work): roads, afforestation environment rehabilitation	(Cash For Work): roads, afforestation environment rehabilitation	Ongoing	
	FAO	Sustainable FS & Livelihood Projects	water control, sust. Use of environment	Planned	
	WFP	FFA, Nutrition, HIV/AIDS, Relief	FFA: Rehab environment, diversifying rural livelihoods, income opportunities	2008-2010	
Phalombe	**MASAF**	Public Works Programme (Cash For Work): roads, afforestation environment rehabilitation	(Cash For Work): roads, afforestation environment rehabilitation	Ongoing	

	FAO	Sustainable FS & Livelihood Projects	water control, sust. Use of environment	Planned	
	WFP	FFA, Nutrition, HIV/AIDS, Relief	FFA: Rehab environment, diversifying rural livelihoods, income opportunities	2008-2010	

Nsanje	**WFP**	Cash for Asset Pilot	Irrigation projects	Jun-Nov 2005	7.746 (incl. Chikwawa)
	IFAD	Rural Livelihood Support Programme	FFA irrigation, road rehabilitation, income generation	Ongoing?	TBC
	MASAF	Public Works Programme (Cash For Work): roads, afforestation environment rehabilitation	(Cash For Work): roads, afforestation environment rehabilitation	Ongoing	
	FAO	Sustainable FS & Livelihood Projects	water control, sust. Use of environment	Planned	
	WFP	FFA, Nutrition, HIV/AIDS, Relief	FFA: Rehab environment, diversifying rural livelihoods, income opportunities	2008-2010	

ANNEX IX - List of Persons Met

Department of Poverty and Disaster Management Affairs	Ambrose Mzoma Coordinator Poverty and Social Protection
Concern Worldwide	James Davey, Assistant Country Director Fiona Edwards, Country Director
IDS	Dr. Stephen Devereux
ADMARC Regional Office for Central Region	Mr. Kandeya
FEWSNET	Sam Chimwaza
European Union	Dominique Blariaux – Programme Manager (Rural Development & Food Security) William Dothi, Project Manager, Rural Development and Food Security
Save the Children	Mohamed Idris
USAID	Mark Visocky – Team Leader for Sustainable Economic Growth
DFID	Mulle Chikoko – Assistant Policy Adviser
GTZ	Dr. Goertler
MACE (Malawi Agriculture Commodity Exchange)	Sydney Khando
FAO	Alick Nkhoma
World Bank	Dr. Hardwick Tchale - Economist
UNICEF	Mayke Huijbregts – Project Officer Dr. Bernd Schubert Stanley Chitekwe - Project officer (Nutrition)
UNDP	Howard Standen, Disaster Risk Reduction Advisor, UNDP Malawi
Malawi Social Action Fund (MASAF)	Grace Hiwa – Operations Manager Paul Chipeta
Ministry of Agriculture, Technical Secretariat	Estere Tsoka
Ministry of Agriculture, Planning department	Mphatso Nyekanyeka
Ministry of Agriculture – IRLAD project	Time H. Fatch – M&E Specialist
Opportunity International Bank of Malawi	David Walker – Head of Operations
Malawi Vulnerability Assessment Committee (MVAC)	Charles Rethman – SCF Adviser
District Commissioner Chikwawa	Mr. Lende

ANNEX X - Household Questionnaire

Name of interviewer_____

District_____

TA_____

Village _____|__|__|

Household number_____|__|__|

Date of interview |__|__|__|__|__|__|
Day Month Year

Guidance for introducing yourself and the purpose of the interview:

- My name is _____ and I work for _____ WFP.
- Your household has been selected by chance from all households in this village for this interview. The purpose of this interview is to obtain information on the food security situation in the area and to get a better understanding of the importance of food markets to households and how the markets function.
- The survey is voluntary and the information that you give will be confidential. The information will be used to prepare reports, but neither your, nor any other names, will be mentioned in any reports. There will be no way to identify that you gave this information.
- Could you please spare some time (around 30 minutes) for the interview?

NB to enumerator: DO NOT suggest in any way that household entitlements could depend on the outcome of the interview, as this will prejudice the answers.

Respondent should be household head or spouse of household head.

Section A: Household Demographics					
A1	Sex of Head of Household		1 =- Male	2 = Female	
A2	Age of Head of Household		Age in years: **|__|__|**		
A3	Marital status of Head of Household		1 = Married	4 = Living apart, not divorced	
			2 = Partner, not married	5 = Widow or widower	
			3 = Divorced	6 = Never married	
A4	Total Number of People Living in the Household **|__|__|**	***Males***	0 to 5 yrs: |___| 6-17yrs: |___| 18-59 yrs: |___| 60+ yrs |___|		
		Females	0 to 5 yrs: |___| 6-17 yrs: |___| 18-59 yrs: |___| 60+ yrs |___|		
A5	Are there any orphans living in your household?		1 = Yes	2 = No	
A6	Have any of your economically productive household members (18-59 years) been chronically ill and unable to work for the past 3 months?		1 = Yes 2 = No		
A7	How many of your economically productive household members (18-59 years) are currently able to work (not chronically ill, disabled)?		|___|		
A8	How many persons in your household who are 6 years or older are currently engaged in some type of economic activity?		Children *(6-17)*	**|__|**	
			Adults *(18-59)*	**|__|**	
			Elderly *(60+)*	**|__|**	
A9	Are all of your children aged 6-17 attending schools regularly?		***Males:*** 1 = Yes, 2 = No ***If yes, go to B1***	***Females:*** 1 = Yes, 2 = No ***If yes, go to B1***	
A10	What is the main reason for not attending? ***See codes below***		**Males |__|**	**Females |__|**	

Codes for A10:		
	1 = Illness	7 = Expensive/no money
	2 = Working	8 = Child considered too young
	3 = Help with HH work	9 = Pregnancy/marriage
	4 = Care for ill member/younger sibling	10 = Hunger
	5 = Not interested in school	11 = Failed previous grade
	6 = Distance to school is too far	88 = Other

Section B. Agricultural Production			
B1	What is the size of the HH land holding? ***(Note: 1 acre = 70 x 70 steps; 1 ha = 0.4 acres)***		**|__|__|.|__|** acres **If none, write '00'**
B2	How much land DID you cultivate THIS season (Nov 06 - Mar 07)? ***(Note: 1 acre = 70 x 70 steps; 1 ha = 0.4 acres)***		**|__|__|.|__|** acres **If none, write '00' and move to C1**
B3	Compared to last season (2005/06) is the area of land you cultivated this season (2006/07) ***larger***, the ***same***, or ***less***?		1 = Larger ***(if 1, skip to B5)***
			2 = Same ***(if 2, skip to B5)***
			3 = Less
B4	What is the primary reason for cultivating less land this season (Nov06 – Mar 07)? ***Use below codes***		**|__||__|**
Codes for B4	1 = leaving fallow	5 = lack of fertilizer	9 = illness in the household
	2 = weather-related causes	6 = lack of labour/insufficient manpower	10 = lack of draught power/no money to hire tractor

	3 = could not access land	7 = pest problems	88 = other
	4 = lack of seed	8 = rented out	
B5	**By order of importance**, what are the main **summer, winter and cash crops** cultivated by your household this year (November 2006 to October 2007)? **Enter code for up to 3 main crops from list below.**		
	B5a: Summer Crops **1** |__||__| **2** |__||__| **3** |__||__|	**B5b: Winter Crops** **1** |__||__| **2** |__||__| **3** |__||__|	**B5c: Cash Crops** **1** |__||__| **2** |__||__| **3** |__||__|

Crop Codes *1 = Maize* *2 = Sorghum* *3 = Millet* *5 = Rice* *6 = Beans* *7 = Groundnuts* *8 = Cassava*	*9 = Sweet Potatoes* *10 = Vegetables (e.g. tomatoes, cabbage)* *11 = Tobacco* *12 = Cotton* *13 = Sugar Cane* *14 = Tea/Coffee* *15 = paprika/peppers*	*16 = Sunflower* *17 = Irish Potatoes* *18 = Bananas* *19 = Pulses/Legumes* *20 = Tangerines (oranges)* *22 = Barley*

B6	How many acres of the **main food crops** did you cultivate this season? ***(Note: 1 acre = 70 x 70 steps; 1 ha = 0.4 acres)***	**Maize** |__|__|.|__| acres **Sorghum** |__|__|.|__| acres **Rice** |__|__|.|__| acres

B7	How many bags (shelled) of **your main food crops** did you (or expect to) harvest this season? ***Note: 1 oxcart produces 7 bags of 50kg (shelled)***		
	B7a. Maize: |__||__| bags x |____| kg	**B7b.** Sorghum: |__||__| bags x |____| kg	**B7c.** Rice: |__||__| bags x |____| kg

B8	Compared to last season (2005/06) is the cereal harvest this season (2006/07) ***greater***, the ***same***, or ***less***? ***Please circle one***	1 = Greater 2 = Same 3 = Less

B9	Please estimate how you will use this season's cereal harvest by providing shares. ***You can use proportional piling, or 'divide the pie' method.***	Own consumption	|_____|
		Selling	|_____|
		Barter	|_____|
		Debt Repayment	|_____|
		Share with friends/relatives	|_____|
		Hiring labour	|_____|
		Other	|_____|
		Usage of total amount of harvest	**100percent**

B10	How long will the share of cereals for own consumption last?			|_____| months		
B11	Did you use any fertilizer for your main cereal crop?			**1** = Yes	**2** = No ***If no, go to C1***	
B12	What was the source of fertilizer?	**1** = purchase	**2** = government voucher	**3** = loan	**4** = NGO	**5=**Gift

Section C. Household income and external support					
C1	What are currently your main livelihood sources? **Use activity code, up to 3 activities**		Please estimate the relative contribution to total income of each source (percent). **You can use proportional piling, or 'divide the pie' method.**		
C1a	**Most important**	|__|__|	|__|__|		
C1b	**Second**	|__|__|	|__|__|		
C1c	**Third**	|__|__|	|__|__|		
Livelihood source codes: *1 = remittance* *2 = Food crop production/sales* *3 = Cash crop production/sales* *4 = casual labour (ganyu)* *5 = begging*		*6 = livestock production/sales* *7 = skilled trade/artisan* *8 = small business* *9 = petty trade (firewood sales, etc.)* *10 = brewing*	*11 = formal salary/wages* *12 = fishing* *14 = vegetable production/sales* *15 = Food assistance* *16 = No other source* *88 = Other*		
C2	**Does this change during the lean season?**		1 = Yes	2 = No **If no, go to C4**	
C3	What were your household's most important livelihood sources **during the last lean season** (Nov 06 –Mar 07)? **Use livelihood code, up to 3 activities**		Please estimate the relative contribution to total income of each source (percent). **You may want to make use of proportional piling, or 'divide the pie' method.**		
C3a	**Most important**	|__|__|	|__|__|		
C3b	**Second**	|__|__|	|__|__|		
C3c	**Third**	|__|__|	|__|__|		
C4	During the past 6 months, which of the following types of support did you receive from **relatives / friends**? ***Circle all that apply***		1 = Money	3 = Clothing	4 = Agricultural inputs
			2 = Food	5 = Other	6 = None ***If 6, go to D1***
C5	How **often** did your household receive the following support? ***Use codes below***		***Money*** |__|	***Food*** |__|	
Codes for C5*: 1=Every month, 2=Occasionally (not regular), 3= Just once*					

Section D. Debt				
D1	During the past 3 months, did you or any member of your HH borrow money?	1 = Yes	2 = No ***(go to Section E)***	
D2	How much did you borrow?	|_____| MK		
D3	What was the primary reason for borrowing? ***Circle one only***	1 = pay for food	5 = pay for education	
		2 = pay for health care	6 = invest in business/assets	
		3 = buy agric inputs	7= invest in HH assets/ improvement	
		4 = pay for social events/funerals	8 = Other	
D4	From whom did you borrow? ***Circle one only***	1= friend/relative	2 = money lender	
		3 = bank/formal lending institution	4 = informal savings group	5 = Other

Section E. Household assets and livestock

E1 — *How many of the following assets are owned by you or any member or your household?*
IF A SPECIFIC ASSET IS NOT OWNED, ENTER' 0'

Non-productive Assets		***Productive & Transport Assets***			
1. Chair	**|__|**	**9. Axe**	|__|	**17. Hand Mill**	**|__|**
2. Table	**|__|**	**10. Sickle**	**|__|**	**18. Bicycle**	|__|
3. Bed	**|__|**	**11. Panga/Machete**	**|__|**	**19. Sewing machine**	**|__|**
4. TV	**|__|**	**12. Mortar**	**|__|**	**20. Plough**	**|__|**
5. Radio	**|__|**	**13. Hoe**	**|__|**	**21. Fishing nets**	**|__|**
6. Refrigerator	**|__|**	**14. Ox Cart**	**|__|**	**22. Canoes**	**|__|**
7. Mobile phone	**|__|**	15. Tractor	**|__|**		
8. Watering can	|__|	16. Pail / Tins	**|__|**		

E2 — How many of the following animals do your family own?

Draught cattle **|__|__|**	Cattle **|__|__|**	Donkeys/Horses **|__|__|**
Sheep/goats **|__|__|**	Pigs **|__|__|**	Poultry/rabbits **|__|__|**

E3 — Have you sold or bartered any livestock during the last lean season (November 06 – March 07)? 1 = Yes; 2 = No *(if no, go to F1)*

E3a — If yes, why? ***Use codes below*** **\|__\|__\|**

Codes for E3a

1 = No longer needed	5 = pay school costs
2 = Buy food for HH	6 = Pay debt
3 =- Pay social event/funerals	7 = other
4 = Pay medical expenses	

Section F. Household food sources, food stocks and storage facilities

F1 — During the last lean season (November 2006 – March 2007), how did your household primarily obtain its cereal from.

Use codes below: **1. \|__\|** **2. \|__\|**

Codes for F1

1 = Own harvest	2 = Casual labour
3 = Borrowing	4 = Gift
5 = Purchase	6 = Food aid
7 = Bartering	8 = Other

F2 — Do you still have cereal stocks from your last years' production? ***Tick as appropriate.*** ***Yes*** **\|__\|** ***No*** **\|__\|** ***If no, go to F4***

F3 — Please indicate the amount of your cereal stocks from last year's production:

F3a.	**F3b.**	**F3c.**
Maize: |__||__| bags x |____| kg	Sorghum: |__||__| bags x|____|kg	Rice: |__||__| bags x |____| kg

F4 — Is the size of your storage facilities sufficient for your harvest? 1 = Yes; 2 = No

F5	What is the share of your stocks that you loose during storage? **Tick one option only.**	*1= None* |__| **(if none, go to G1)** *2=less than half* |__|	*3=half* |__| 4=more than half |__|
F6	What is the main reason for that loss? **Tick one reason only.**	1= theft |__| 2=weevils |__| 3= rats |__|	4=wild animals |__| 5=quality of storage facility |__| 6=other |__|

Section G. Households' access to markets

G1	Do you **buy** cereals for own consumption?	1=Yes	2=No ***If no, go to G6***

G2 When do you **buy** cereals for own consumption and **from whom**?

Use below codes; more than one is possible!

Nov 06	Dec 06	Jan 07	Feb 07	Mar 07	Apr 07	May 07	Jun 07	Jul 07	Aug 07	Sep 07	Oct 07

	Codes: 1=HH in village 2= Market/Trading Centre (see Annex)	3=ADMARC (see Annex) 4=Mobile Traders	5 = Shop (not market stall) 6 = other market

G3	What is the name of the village with the ADMARC depot or market where you **buy**? ***See codes, or insert name.***	**Code(s) |_____|** **Name |_____|**	
G4	What means of transport do you use to reach the market for **buying** and how long does it take? ***Circle all relevant answers.***	**1**= Walk ***If 1, go to G6***	hrs|____| mins |____|
		2= Bicycle	hrs|____| mins |____|
		3= public transport (e.g. Bus, matola…)	hrs|____| mins |____|
		4= vehicle, motorbike	hrs|____| mins |____|
G5	What are the transportation costs for both ways (to and from the market)	|_____| MK	

G6	Do you **sell** cereals from your own production?	1= Yes	2=No ***If no, go to H1***

G7 When do you **sell** cereals from own production and **to whom**?

Use codes above; more than one code is possible!

Nov 06	Dec 06	Jan 07	Feb 07	Mar 07	Apr 07	May 07	Jun 07	Jul 07	Aug 07	Sep 07	Oct 07

	Codes: 1=HH in village 2= Market/Trading Centre (see Annex)	3=ADMARC (see Annex) 4=Mobile Traders	5 = Shop (not market stall) 6 = other market

G8	What is the name of the village with the ADMARC depot or market where you **sell**? **See codes, or insert name.**	**Code(s) |_____|** **Name |_____|**	
G9	What means of transport did you use to reach the market for **selling** and how long did it take? ***Circle all answers and insert time.***	**1**= Walk	hrs|____| mins |____|
		2= Bicycle	hrs|____| mins |____|
		3= public transport (e.g. Bus, matola…)	hrs|____| mins |____|
		4= vehicle, motorbike	hrs|____| mins |____|

G10	What were the transportation costs for both ways (to and from the market)?	**|**_____**|** MK

Section H. Expenditures			
H1	Please estimate the amount of money you spent on the following items **over the last 30 days**. ***Insert 00 for items on which no money was spent.***	*Medical expense*	**|**_____**|MK**
		School Expenses	**|**_____**|MK**
		Cereals (maize, millet, sorghum)	**|**_____**|MK**
		Other food items (e.g. legumes, veg, meat, etc.)	**|**_____**|MK**
		Debt repayment	**|**_____**|MK**
		HH expenses (soap, clothing, etc.)	**|**_____**|MK**
		Alcohol & Tobacco	**|**_____**|MK**
		Productive assets (e.g. hoe, oxcart, etc.)	**|**_____**|MK**
		Non-productive (e.g. radio, pots, etc.)	**|**_____**|MK**
		Total	**|**_____**|MK**
H2	**During the lean season** (Nov06 – Mar07) what was the share of your total expenditures you spent on food (cereals and other foods)? ***Tick one.***	1 = less than half **|**___**|** 2= half **|**___**|** 3=more than half **|**___**|** 4=almost all **|**___**|**	

Section I. Food Consumption		
I1	How many meals did your household eat **yesterday**?	|__| **NUMBER OF MEALS**
I2	Over the last seven days, how many days did you consume the following foods? What was the main source of the different food items?	

	Number of ***days*** ***(0 to 7)***	**Source**
1. Maize, maize porridge	|__|	|__|
2. Other cereal (rice, sorghum, millet, etc) Bread, pasta	|__|	|__|
3. Cassava, sweet potatoes, irish potatoes	|__|	|__|
4. Sugar or sugar products, sugarcane	|__|	|__|
5. Pulses	|__|	|__|
6. Groundnuts and cashew nuts	|__|	|__|
7. Vegetables/ relish /leaves/pumpkin	|__|	|__|
8. Fruits	|__|	|__|
9. Beef, goat, pork or other red meat, game	|__|	|__|
10. Poultry, eggs	|__|	|__|
11. Fish	|__|	|__|
12. Oils/fats/butter	|__|	|__|
13. Milk/yogurt/other dairy	|__|	|__|
14. Corn Soya Blend (CSB), likuni phala	|__|	|__|

Source codes:	
1 = From own production	5 = Purchases
2 = Casual labour	6 = Food aid
3 = Borrowed	7 = Barter
4 = Gift	8= Hunting
	9 = Purchase food on credit

Section J. Coping strategies						
In the past 30 days, how frequently did your household resort to one or more of the following strategies? ***CIRCLE ONLY ONE ANSWER PER STRATEGY.***		Never	Rarely (< 1 days /week)	Sometimes (1-2 days /week)	Often (3-5 days/ week)	Almost Daily
J1	Skip entire days without eating?	1	2	3	4	5
J2	Limit portion size at mealtimes?	1	2	3	4	5
J3	Reduce number of meals eaten per day?	1	2	3	4	5
J4	Rely on less expensive or less preferred foods?	1	2	3	4	5

J5	Have you sold any household assets to buy food?	1 = Yes, productive	2 = Yes, non-productive
		3 = Yes, both types	4 = No
J6	Have you sold any household assets to pay for health care/medical expenses?	1 = Yes, productive	2 = Yes, non-productive
		3 = Yes, both types	4 = No

Section K. Shocks

K1	Has your HH experienced any of the following shocks over the past 6 months? ***Use Codes: 1 = Yes*** ***2 = No***	1= Theft	**|__|**
		2= Drought	**|__|**
		3= Floods	**|__|**
		4= Death of a HH member	**|__|**
		5= Steep price increases of staple foods	**|__|**
		6= Other	**|__|**

Section L. Food assistance

L1	Did your household receive **food aid** at any time during the last 6 months?	1 = Yes	2= No ***If no, go to L4***
L2	Did you sell or barter any of this food aid? ***Use code: 1 = Yes, 2 = No***	1 = Cereals **|__|**	2 = Pulses **|__|**
		3 = Oil **|__|**	4 = CSB **|__|**
L3	If yes, how much? ***see codes below***	1 = Cereals **|__|**	2 = Pulses **|__|**
		3 = Oil **|__|**	4 = CSB **|__|**

Codes for L3 ***1*** *= all* ***2*** *= More than ½* ***3*** *= Half* ***4*** *= Less than half*

L4	Did your household receive any **other assistance** during the last 6 months? ***Circle all relevant answers.***	1 = Farm inputs	5 = Loans	
		2 = Agricultural skills training	6 = Cash	
		3 = Other skills training	7 = Educational support	
		4 = Clothing	8 = Other	9= None

Section M. Transfer preference

M1	If you could choose between food or cash assistance or a combination of both of equal value, which would you prefer?	1 = Food *(go to M2)*	2 = Cash *(go to M3)*	3 = Both *(go to M4)*
M2	What are the two main reasons you prefer **food**?	**a. |__|**	**b. |__|**	
1 = Satisfies HH food shortages		2 = Difficult to steal food	3 = Food prices are high	
4 = Food prices are unpredictable		5 = Better for children	6 = Easier to share with family/friends	
7 = Better managed by women		8 = Market supply of food unpredictable	9 = Difficult to access market	10. Other, please specify _____
M3	What are the main reasons you prefer **cash**?	**a. |__|**	**b. |__|**	
1 = Can purchase food		2 = Food prices are low	3 = Can purchase a variety of foods	
4 = Easy to transport/no costs		5 = Can save part of the cash	6 = Can purchase agricultural inputs and other items	
7 = Can be used for other expenses		8 = have good access to markets	9 = There is plenty of food for sale	10. Other, please specify _____
M4	What are the main reasons you prefer **both**?	**a. |__|**	**b. |__|**	
1 = With both, we can meet seasonal needs		2 = Safer than just cash (theft)	3 = Can be controlled by both men and women	
4 = Ability to cope is improved		5 = Other (specify) _____		