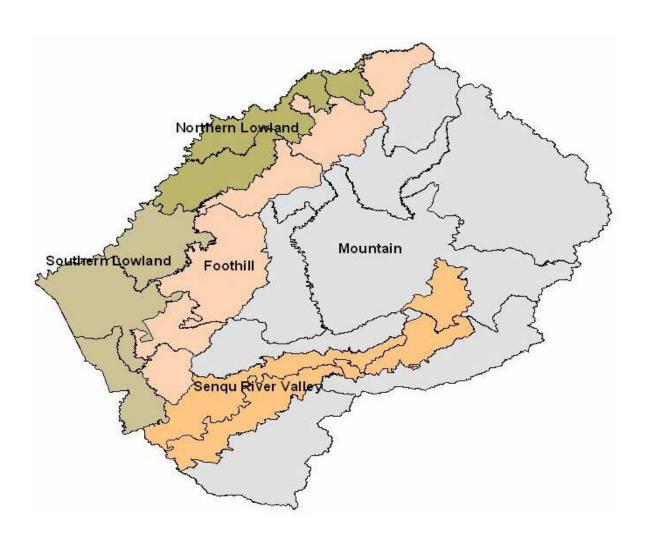




# Lesotho Food Security and Vulnerability Monitoring Report May 2008



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Matŝeliso Mojaki Chair, LVAC July 2008

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#### **Acronyms and Abbreviations**

BOS Bureau of Statistics

CHS Community and Household Survey

DAO District Agricultural Office

DMA Disaster Management Authority
FAO Food and Agriculture Organization
FNCO Food and Nutrition Coordinating Office

HEA Household Economy Approach

FTH Foot Hills
MTN Mountains

SLL Southern Lowlands
NLL Northern Lowlands
SRV Sengu River Valley

PU Peri - Urban

LVAC Lesotho Vulnerability Assessment Committee

LZ Livelihood Zone

MTICM Ministry of Trade, Industry ,Cooperatives and Marketing

NNSS National Nutrition Surveillance System

NGO Non Governmental Organization

RVAC Regional Vulnerability Assessment Committee

RSA Republic of South Africa

SADC Southern African Development Cooperation

WFP World Food Programme

#### **Highlights**

- Unlike in previous years, only one crop production forecast for 2008 was conducted led by the Bureau of Statistics (BOS) and with participation of the National Early Warning Unit (NEWU) and Ministry of Agriculture and Food Security (MAFS). Although this is the right way to go in terms of minimizing assessments, it also means there is no opportunity to crosscheck the results with other assessments. The assessment forecast maize production for the 2007/08 season at 69,000 metric tons and sorghum at 8450 metric tons. This represents a 5% drop in maize production from 2006/07 production of 72,600 Metric tons and a 53% increase in sorghum production over the 2006/07 estimate of 5496 metric tons. Although Wheat production was not estimated, an average summer and winter production estimate of 10,330 Metric tons was taken resulting in total cereal production estimate of 88,000 Metric tons. It should be noted however, that the 2006/07 crop production estimates by the BOS were largely dismissed as unrealistically high given the extreme weather conditions in what was described as the 'worst drought in 30 years'.
- Comparisons with other maize production estimates for 2007, that is, the Rapid Crop Assessment (RCA) and the Crop and Food Supply Assessment Mission (CFSAM) indicate an increase in 2007/08 production of 11% and 35% respectively and this confirms the community views that 2008 production is certainly higher than in 2007.
- By May 2008, the price of maize flour had increased by 50% over May 2007 prices and 300% over LVAC baseline year (2004/05) prices i.e. from M2/kg in 2004 to M6/kg in 2008. Between January and May 2008, the price of maize flour increased by 20% (from M5/kg to M6/kg) and is likely to increase further. The price of cooking oil increased by 100% between May 2007 and May 2008 and this has been the most significant increase so far. Lesotho imports approximately 70% of the maize needed in the country and prices in South Africa directly influence prices in Lesotho.
- The Food Balance Sheet for the year 2008/09 produced by the Early Warning Unit of the Disaster Management Authority (DMA), indicates that of the total national cereal requirement of 344,000 MT, 270,000MT or 78% is made up of commercial stocks and planned (commercial) imports. This means there should be enough food available in the country although the question will be who will and who will not be able to access the food through purchases.
- The LVAC collected data on the prices of other commodities such as paraffin, soap, matches and Vaseline. All showed increases in the range of 65 75% over the baseline prices in the six Livelihood Zones.
- The prices of Livestock have increased significantly although this mainly affects the 'middle' and 'Better off' households who own livestock. Price increases were in the range of 75% 100% over baseline prices across the zones.
- A significant change was in the casual labour rates that had doubled from M10 per day in May 2007 to M20 per day in May 2008. The casual labour rates had remained at M10 per day since the baseline year (2004/05) and this meant, poor household incomes were remaining stagnant in the face of increasing prices of food and other commodities.
- In situations where no data was available, LVAC made inflationary adjustments on the May 2007 prices. Plans are underway to improve data collection so that more realistic data sets can be used in future. One area where data collection and price estimates have been difficult is with Wool and Mohair and LVAC will work with the Department of Marketing in MTICM to rectify the problem.

- In view of the key issues highlighted above, the LVAC estimates approximately 353,000 people will need humanitarian assistance in 2008/09. Of this population, 229,000 from the Southern Lowlands, Foothills, Peri Urban, Senqu River Valley and the Mountains face both a Food and Expenditure Deficit. This means that, in addition to fore going essential household expenditure such as medical costs and agricultural inputs in order to buy food, they will still not be able to meet their annual food energy requirements. This is the group that is in most need for assistance.
- The remaining 124,000 people in the Mountains face an expenditure deficit of M88 per household. This means part of the essential basket cannot be purchased because the households need to buy more food to meet annual food energy requirements. Although this can be considered a minimal problem at this stage, the increasing food prices or any other minor shock may push the group into severe conditions. Interventions to reduce the risk should be considered e.g. cash for work to increase household incomes.
- The LVAC also estimates 49,000 people mainly from the 'Very Poor" social economic group in the Northern Lowlands are currently showing no deficit but are at risk of falling into the category needing humanitarian assistance especially if food prices continue to increase. Close monitoring of the situation of these households is recommended.
- The affected populations are mainly the 'very poor' in 5 Livelihood Zones and the 'poor' in the Peri Urban, Senqu River Valley and the Mountains Livelihood Zones. The 'Very poor' in the Peri Urban will need assistance equivalent to approximately 6 8 months while the 'Very poor' in the remaining zones and the 'poor' in Peri Urban zone will need assistance for 4 5 months

#### 1. Summary Outcomes

Since 2006 when LVAC updated the Lesotho livelihood baseline profiles and introduced more advanced modeling methods, the LVAC is able to present its results in terms of food deficits and expenditure deficits. In addition, both types of deficit have been expressed in cash terms and maize equivalents for the purpose of aiding intervention options based on cost implications and other considerations.

An expenditure deficit occurs when households can afford to purchase the balance of food required to make up 100% of energy requirements but cannot afford to purchase all items in the expenditure basket. (Note that the expenditure basket contains essential expenditure such as education, health, agriculture and livestock inputs, and grinding).

A food deficit occurs when households cannot afford to purchase the balance of food required to make up 100% of energy requirements, on top of not being able to afford anything in the expenditure basket.

In each Livelihood zone, the LVAC calculates a food deficit, which is expressed as a percentage of the minimum per capita energy requirement based on the requirement of 2100Kcal per person per day. This information has been converted into maize equivalent and cash for ease of interpretation, maize being the staple food in Lesotho.

In addition, the LVAC calculates the Expenditure deficit by multiplying the deficit per household with total number of affected households. The total expenditure deficit is also converted into maize equivalent to give an idea of what intervention level is required.

Note: There is a sequence in household response to effects of a shock that has resulted in missing some of their food entitlements. The first response is to draw on normal coping mechanisms such as selling an extra goat. If this does not cover the missing food entitlement the household will draw on discretionary expenditure e.g. transport or clothing. If this does not cover the missing food entitlement then the household will draw on essential expenditure such as education and inputs. This will result in an expenditure deficit and if the missing food entitlement is likely not to be covered even after all essential expenditure is switched to buying food, then the household is going to experience both an expenditure and food deficit.

**Foothills** - the 'very poor' households with a population of 22,339 people are likely to face a food deficit of 33% per person and an expenditure deficit of M570 per household. The maize required to fill the food deficit is 1557MT and cash equivalent is M9,339,818 The total expenditure deficit for the 'very poor' households is M2,122,224 or a maize equivalent of 354MT

Expressed in cash terms, the combined expenditure and food deficit can be covered by M11,462,042. Expressed in maize equivalent, the combined food and expenditure deficit can be covered by 1911MT.

**Mountains** - In this zone the 'very poor' households are likely to face food and expenditure deficit while the 'poor' households are likely to face a small expenditure deficit. The 'very poor' households with a population of 40,528 people are likely to face a food deficit of 37% per person and an expenditure deficit of M477 per household. The maize required to fill the food deficit is 3166MT and cash equivalent is M18,998,356. The total expenditure deficit for the 'very poor' households is M2,761,709 or a maize equivalent of 460MT. In addition, the 'poor' households with a population of 123,514 people are likely to face an expenditure deficit of M88 per household which translates to M1,358,660 or a maize equivalent of 226MT.

Expressed in cash terms, the combined expenditure and food deficit for the 'very poor' and the 'poor' can be covered by M23,118,725. Expressed in maize equivalent, the combined food and expenditure deficit can be covered by 3852MT.

**Northern Lowlands** – the current situation indicates that there are not likely to be any food or expenditure deficits in this zone. However, approximately 49,000 people from the 'very poor' households will just be able to cover their minimum food needs assuming no further food price escalation. This group should be closely monitored in light of anticipated food price increases that could push them into the category requiring humanitarian support. Interventions to reduce the risky of this group falling into the category requiring humanitarian support, such as cash for work should be considered.

Peri Urban Areas – In this zone both the 'very poor' and the 'poor' households are likely to face food and expenditure deficit. The 'very poor' households with a population of 14,482 people are likely to face a food deficit of 50% per person and an expenditure deficit of M476 per household. The maize required to fill the food deficit is 1529MT and cash equivalent is M7,644,834. The total expenditure deficit for the 'very poor' households is M984762 or a maize equivalent of 197MT. The 'poor' households with a population of 34,075 people are likely to face a food deficit of 31% per person and an expenditure deficit of M476per household. The maize required to fill the food deficit is 2230MT and cash equivalent is M11,152,463 The total expenditure deficit for the 'poor' is M2,317,088 or a maize equivalent of 463MT

Expressed in cash terms, the combined expenditure and food deficit for the 'very poor' and the 'poor' can be covered by M22,099,147. Expressed in maize equivalent, the combined food and expenditure deficit can be covered by 4419MT.

<u>Southern Lowlands</u> – In this zone the 'very poor' households with a population of 76,785 people are likely to face a food deficit of 33% per person and an expenditure deficit of M457 per household. The maize required to fill the food deficit is 5351MT and cash equivalent is M 32,103,112. The total expenditure deficit for the 'very poor' households is M7,018,149 or a maize equivalent of 1170MT.

Expressed in cash terms, the combined expenditure and food deficit for the 'very poor' can be covered by M39,121,161. Expressed in maize equivalent, the combined food and expenditure deficit can be covered by 6521MT.

**Sengu River Valley** – In this zone both the 'very poor' and the 'poor' households are likely to face food and expenditure deficit. The 'very poor' households with a population of 10,708 people are likely to face a food deficit of 33% per person and an expenditure deficit of M431 per household. The maize required to fill the food deficit is 746MT and cash equivalent is M4,476,879. The total expenditure deficit for the 'very poor' households is M923,022 or a maize equivalent of 154MT. The 'poor' households with a population of 29982 people are likely to face a food deficit of 9% per person and an expenditure deficit of M464 per household. The maize required to fill the food deficit is 570MT and cash equivalent is M3,418,707. The total expenditure deficit for the 'poor' is M2,318,619 or a maize equivalent of 386MT.

Expressed in cash terms, the combined expenditure and food deficit for the 'very poor' and the 'poor' can be covered by M11,137,227. Expressed in maize equivalent, the combined food and expenditure deficit can be covered by 1856MT.

The National Summary shows approximately 353,000 people will require humanitarian assistance of varying levels in 2008/09. Out of this population, approximately 229,000 people will face a food deficit equivalent to 15149MT of maize or M87,134,000 in cash terms.

In addition, approximately 59,000 households that make up the overall population in need (353,000) will face an expenditure deficit of approximately M19,804,000 or 3411MT in maize equivalent.

The combined food and expenditure deficit in cash terms is approximately M106,938,000 or a maize equivalent of approximately 18500MT

Note that the price of maize used in the above calculation is the village level price of M6 per KG of maize flour in all zones except the Peri –Urban zone where the price is M5/KG of maize flour.

#### 2. Current Year Issues and Analysis

#### 2.1 The LVAC Analysis model

In January – February 2006, the LVAC carried out livelihood baseline profiling in all the six zones. The Household Economy Approach (HEA) was used to develop the profiles. The basic principle underlying the Household Economy Approach is that analyzing local livelihoods is essential for a proper understanding of the impact (at household level), of shocks such as drought, conflict or market disruption. Crop failure may, for example, leave one group of households without anything to eat because crop production is their main source food, while another group may be able to cope because they have alternative sources of food and income that can make up for the lost crop production.

Geography and wealth are key determinants of livelihood patterns and it is for this reason that LVAC focuses on analysis by Livelihood Zone to be able to pick up the specific conditions that affect households in each of the zone. This would not be possible if one used only the administrative units for analysis. The wealth status of the household determines the options available for access to food and income. This is the other reason LVAC goes through the process of defining Wealth Groups in each Livelihood Zone as part of the household economy baseline development.

Having grouped households according to where they live and their wealth, the next step is to generate baseline livelihood profiles for typical households in each group for a defined baseline or reference year. Food access is determined by investigating the sum of ways households obtain food i.e. how much food they get from own crop, livestock, gifts and purchases. Information is also collected on how much cash income is earned in a year and what essential needs are met with the earned income. Once the baseline is established, analysis can be made of the likely impact of a shock or hazard in a bad year. This involves assessing how food access will be affected by the shock, what other food sources can be added or expanded to make up for the initial shortfall and what final deficits emerge after exhausting all coping strategies. The LVAC selected 2004/05 as the baseline or reference year and therefore its current analysis reflects the impacts of current problems on the baseline situation of 2004/05.

The LVAC assessment teams spent 7 days in May assessing the current year situation and visited a total of 32 villages in the six Livelihood Zones. In each village interviews were conducted with village leaders and representatives of each of the four wealth groups i.e. the 'very poor', 'poor', 'middle' and 'better -off'. A total of 122 Wealth Group interviews were conducted each interview having 6 – 8 participants. In addition, 32 village shop interviews were conducted to understand changes in market prices. Informal interviews were also held with relevant District officials and other key informants such as livestock traders. The assessment team spent 5 days analyzing the field data and.

#### 2.2. The Key parameters assessed in May 2008

After the process of establishing the livelihood baseline profiles in 2006, key parameters for monitoring were identified in each zone. Regarding food sources, a source that contributes at least 2% of total annual household minimum food energy required is considered a key parameter for monitoring. All income sources are key parameters as well prices of food, labour, livestock and the price of items in the Minimum Non Staple and Essential Expenditure baskets.

The key parameters assessed included;

- Household access to food from own production and how this compares to access in the baseline year (2004/05).
- Household access to food from agricultural labour exchange and how this compares to access in the baseline year.
- Access to food from livestock and livestock products and how this compares to

- access in the baseline year
- Access to income in the current year from crop sales, livestock sales, agricultural
  and other casual labour, brewing, sale of livestock products such as wool and
  mohair, and petty trade. For each of the above parameters we looked at baseline
  versus current quantities.
- The current prices of maize, livestock (cattle, sheep, pigs chickens, goats) in the current years and compared to 2007 and baseline year prices
- The price of items in the minimum non staple basket (soap, paraffin, matches, Vaseline, beans, cooking oil and salt), and the essential expenditure basket (education, medical, inputs and grinding of maize/ sorghum).

The findings from the key parameter analysis formed the current year problem specification for scenario modeling with the baseline data. In some cases it was difficult to estimate changes in prices due to lack of data and/ or difficulty in estimating quantities especially for Wool and Mohair. In all situations where current year prices could not be established, an inflation adjustment was made using the 2007 prices.

#### 2.3 Issues and Analysis

#### 2.3.1 Crop Production:

One crop production forecast exercise for 2008 was conducted led by the Bureau of Statistics (BOS) and with participation of the National Early Warning Unit (NEWU) and Ministry of Agriculture and Food Security (MAFS).

The crop production forecast report indicates an increase in area planted with maize which is 196,037ha in 2007/08 compared to 153,751ha in 2006/07 agricultural season representing an increase of 28%. On the other hand, area planted for sorghum in 2007/08 stands at 42,712ha compared to 130,232 ha planted in 2006/07. This represents a decline of 67%.

The assessment forecast maize production for the 2007/08 season at 69,000 metric tons and sorghum at 8450 metric tons. This represents a 5% drop in maize production from 2006/07 production of 72,600Metric tons and a 53% increase in sorghum production over the 2006/07 estimate of 5496 metric tones. Although Wheat production was not covered in the forecasting exercise, an average summer and winter production estimate of 10,330 Metric tons was made resulting in total cereal production estimate of 88,000 Metric tons.

Despite the increase in area planted for maize, the crop forecasting exercise indicates over all production is slightly lower that last year. Comparisons with other maize production estimates for 2007 by the Rapid Crop Assessment (RCA) and the Crop and Food Supply Assessment Mission (CFSAM) indicate an increase in 2007/08 production of 11% and 35% respectively.

The LVAC did not quantify production estimates from the community interviews in respect to 2006/07 and 2007/08 seasons but on the whole, the communities interviewed, expected a better harvest compared to the 2006/07 season. The LVAC assessment compared 2007/08 production figures from BoS with the baseline year (2004) production and the results were largely similar to BoS statistics.

Reasons for the expected low production include the following;

- Late planting due to late start of rains especially in the Mountains where normal planting should start in August/ September.
- In other places planting was late due to a combination of factors including late arrival of inputs and sporadic rains in some places.
- According to the Lesotho Meteorological Services (LMS), the last ten days (Dekad) of January and the first ten days of February were dominated by a dry spell which affected crops in some part of the country.
- In cases where farmers had to 'pool' their fields in order to access funds meant for

block farming, delays related to organising the groups and accessing the funds resulted in late planting. It is claimed that in some parts of Roma, farmers were still planting maize as late as January and such crops were bound to be seriously affected by Frost.

As a result of late planting, crops were damaged by frost in April. This time it cannot be characterised as early frost because that is normal time for frost in winter and in fact it delayed in the Mountains and was on time in the Foothills, though a bit early in the Lowlands.

#### **Trends in Maize production**

Year	Production
2000/2001	158,200 Metric Tons
2001/2002	111,200 Metric Tons
2002/2003	85,000 Metric Tons
2003/2004	81,000 Metric Tons
2004/2005	100,700 Metric Tons
2005/2006	86,400 Metric Tons
2006/2007	72,600 Metric Tons
2007/2008	69,000 Metric Tons
Average	95,500 Metric Tons
2008 compared to Average	72%
2008 compared to Baseline (2003/2004)	85%

The LVAC used the BOS crop production estimates for 2008 and the baseline year production (2003/2004) to calculate percentage changes in production that constitutes the current year maize production problem specification as follows;

Foot Hills: 80% of baseline production, Mountains: 65%, Northern lowlands: 115%, Peri – urban:80%, Southern Lowlands:75%, and Senqu River Valley: 80% of baseline production. Similar calculations were made for sorghum and for crops not covered by the forecast exercise, production was assumed to be same as for maize/sorghum. The details of other crop production problem specifications are provided in the specific Livelihood Zone reports.

#### 2.3.2 Availability of Casual labour

Normally 'very poor' and 'poor' households access significant proportions of their annual food intake and annual cash incomes from agricultural activities especially weeding. This year such activities were affected by the problems that have affected crop production in general such as delayed planting and less labour opportunities at harvest time due to the low crop production. As a result, the problem specification for casual labour availability in comparison to the baseline year is; FootHills:80%, Mountains:65%, Northern lowlands:115%, Peri – Urban:80%, Southern Lowlands:75%, and Sengu River Valley:80%.

#### 2.3.3 Casual labour wages

Casual labour is an important source of cash income for the 'very poor' and 'poor' households contributing up to 35% of total annual household income. The daily wage for casual labour (an average of 5 hours' work) was M10 since the baseline year but the latest assessment found that casual labour rates have doubled to M20 and this means more cash is available for households to spend on food and other commodities. However, the effect of this increase is minimized by the raise in cost of various commodities such as maize flour which is now at 300% of baseline prices.

#### 2.3.4 Price of Food

Globally food prices have been soaring in the past twelve months posing a threat to global food and nutrition security. A number of casual factors for the dramatic food price increases have been identified and include; Rapid growth in demand for food coupled with low global food stock levels. It is estimated that global food stocks are currently at the lowest in 20 years and yet demand is ever on the increase for both human and animal feed. Experts claim that the low stock levels and high demand is responsible for 50% of the food price increase growth.

Conversion of maize into bio fuel production has also been identified as a major causal factor in the global food price crisis, accounting for approximately 30% of the price increase. In 2007, the United States converted close to 25% of its maize production into ethanol and this represents 7 times the amount converted in 1997.

High fuel prices are also responsible for the high food prices by pushing the cost of cultivation, fertilizer and transport. It is estimated the cost of inputs in South Africa has increased by 72 -80% in the past twelve months and high fuel prices are a major contributor to the high input costs.

Extreme weather conditions associated with climate change are also contributing to the low crop production globally. In addition, there is high commodity price speculation and big purchases are being made in anticipation of higher prices. The Malawi VAC has indicated that traders are offering very high prices (higher than price recommended by Government) in anticipation of further price rises. This has the effect of reducing further the available food and putting upward pressure on food prices.

Although the food prices are increasing at a lower pace in Southern Africa compared to the global increase, the pattern indicates that prices are likely to continue rising and this will expose more households to food and nutrition vulnerability. Between January and May 2008 global maize prices increased by 59% while the increase in South Africa in the same period was 35%. An assessment by Catholic Relief Services (CRS) found that the price of maize in one Mountain village (Bobete in Thaba Tseka) had increased by 14% to 20% between January and May 2008. This picture is confirmed by food price monitoring reports produced by WFP which cover selected rural and urban shops in all Districts.

By May 2008, the price of maize flour had increased by 50% over May 2007 prices and 300% over LVAC baseline year (2004/05) prices i.e. from M2/kg in 2004 to M6/kg in 2008 in the rural parts of Lesotho. In the same period the price of maize flour in the Peri Urban areas increased by 250% i.e. from M2/kg to M5/kg. Between January and May 2008, the price of maize flour increased by 20% (from M5/kg to M6/kg) and is likely to increase further. The price of cooking oil increased by 100% between May 2007 and May 2008 and this has been the most significant increase so far. Lesotho imports approximately 70% of the maize needed in the country and prices in South Africa will continue to have an effect on the local prices.

Catholic Relief Services (CRS) carried out an assessment in June 2008 in Bobete Village in ThabaTseka District to assess the impact of rising price and how people are coping. The assessment focused on the price increase questions on the most important commodities as identified by LVAC such as maize, paraffin, cooking oil and transport. Interviews were held with individual households and shop owners on price increases between January and May 2008. The results of the assessment indicate price increases ranging between 14% and 20% for maize, 32% - 41% for paraffin, 72% - 85% for cooking oil and 42% - 63% for candles. There was discrepancy in the price increases given by individual households and Shop owners and this was similar observation during the LVAC assessment whereby the shop owner interviews indicate the lower percentage increases while the household interviews show much higher percentage increases.

The report also gives useful insights on household responses to the high commodity prices since January 2008. For example 36% of the respondents mentioned they had stopped eating beef since January, 50% of adult respondents mentioned they eat smaller meals to ensure there is enough for food for the children and 61% of respondents had borrowed food or money to buy food.

Although this was a localised assessment, it provides evidence that can build into the bigger picture of what is likely to be happening in remote and isolated areas of the mountains. These are areas that the National Nutrition Survey and the Nutrition Surveillance System have identified to have highest stunting and underweight levels. Further increases in the price of food can only make such communities more vulnerable to food and nutrition insecurity.

#### 2.3.5 Prices of Livestock and Livestock products

The assessment looked at the prices of livestock and livestock products and compared it with the baseline prices. Price data for cattle, sheep, goats, pigs, chickens and wool and mohair were collected.

In general, prices increase over baseline prices of 565 - 100% were observed for cattle in all zones, 30% - 60% for sheep, 30% - 75% for goats, 100% - 160% for piglets and 50% - 60% for chickens. Specific increases per zone are given in the section on Results by Livelihood Zone.

Estimating income from Wool and Mohair has always been difficult and the interviewed households were not in position to quantify sales or estimate income from sales (with exception of a few Livelihood Zones). In all cases where incomes estimations were not possible, adjustments for inflation were made.

#### 2.3.6 Price of Items in the Minimum Non Staple Basket

The Minimum Non Staple Basket is constructed in the baseline to ensure that some minimum expenditure is maintained by households even in the most difficult situations. This basket contains soap, paraffin, matches, Vaseline, beans, cooking oil, vegetables and salt. The amount of money to buy this basket is reserved or locked up during modelling and can therefore not be converted to purchase food even in the worst circumstances.

The price of each commodity in the basket was collected and compared to the baseline price and the overall percentage increase was between 66% and 77%. This in effect means more cash is withdrawn and allocated for the basket and therefore less is available for food purchase this year.

#### 2.3.7 Price of Items in the Essential Expenditure Basket

The Essential Expenditure Basket contains average household expenditure on medical, education, grinding and inputs. This expenditure could be switched to food purchase in time of a crisis but it has consequences such as children not attending school or not buying of inputs such as fertilizer that may lead to poor production and so on. It is therefore important to preserve this essential household expenditure. During this assessment, it was not possible to collect reliable price data on the items in the essential expenditure Basket. The team therefore decided to add inflationary adjustments to the 2007 data.

As with the minimum non staple basket, the increase in the cost of the minimum essential expenditure basket means more cash is allocated to this basket thus reducing the cash available for purchasing food this year.

#### 2.3.8 Nutrition

A National Nutrition Survey led by the Food and Nutrition Coordinating Office (FNCO) in November 2007 revealed that Global Acute Malnutrition (GAM) was within 'Acceptable' levels according to WHO classification of malnutrition. Stunting levels however, were extremely high with a national average of 41.7%. Thaba Tseka District had the highest Stunting Prevalence of 55%.

The National Nutrition Surveillance System (NNSS) also coordinated by FNCO was revitalized in September 2007 to continuously monitor malnutrition levels in country and inform early interventions. The October – December 2007 NNSS Bulletin showed Qachas Nek with the highest underweight prevalence of 31% which is considered 'Critical' followed by Thaba Tseka at 18% which is considered 'Poor'.

The January – March 2008 National Nutrition Surveillance bulletin shows an improvement in underweight prevalence with the highest being Qachas Nek at 22% which is considered 'Serious', followed by Mohales Hoek at 15% which is considered 'poor'

The LVAC has supported the FNCO with market price data to strengthen the analysis and attempt to predict the impact of rising food prices on household vulnerability to food and nutrition security. Efforts to further strengthen this partnership are on going in addition to incorporating other food security related analysis into the nutrition surveillance bulletins.

#### 3.1 Foothills

# 3.1.1 Main Livelihood Characteristics of 'very poor' and 'poor' households in this zone

- Own crop production contributes about 20 -25% of annual food energy consumed
- Agricultural labour contributes about 15 -30% of annual food energy consumed
- Food purchase contributes about 35 45% of annual food energy consumed
- Casual labour contributes about 30 -45% of the annual cash income
- Remittances contribute about 20 40% of annual cash income
- The main coping strategy in crisis situations is to look for more casual labour opportunities. However, the main income activities are agricultural related such as weeding and this year opportunities were depressed compared to baseline year.

#### 3.1.2 Current year situation

Sufficient rains for planting were received in October and November although normal planting time should be august – September. The rains are said to have been too much in November causing water logging. This affected crop conditions as well as opportunities for weeding which are very important for 'poor' and 'very poor' households.

As a result of late planting (the majority claimed to have planted in November – December) much of the crop was affected by frost in April.

Livestock conditions were said to be good although sheep scab killed many sheep and the quality of wool was expected to be lower thus earning less income.

#### 3.1.3 Problem specification for the Foothills

Key parameters	Percentage change from baseline
Maize production	80%
Sorghum production	70%
Beans	70%
Price of maize	300%
Food from agric labour	80%
Cash from agric labour	80%
Cash from crop sales	80%
Minimum Non staple basket	177%
Essential Expenditure Basket	126%
Price of cow	200%
Price of goat	129%
Price of Sheep	160%

NB. 100% = normal baseline quantity or price

The 'very poor' and 'poor' households in this zone purchase 30% - 45% of their total annual food intake and are therefore very vulnerable to food price increases. In addition, a significant portion of their annual food consumption is derived from labour exchange that is reduced this year due to low crop production. The combination of high food and other commodity prices, constrained casual labour opportunities and low crop production this year, will reduce household capacity to access enough food as well as meet the essential household expenditures.

Given the scenario above, the 'very poor' households with a population of 22,339 people are likely to face a food deficit of 33% per person and an expenditure deficit of M570 per household. The maize required to fill the food deficit is 1557MT and cash equivalent is M9,339,818 The total expenditure deficit for the 'very poor' households is M2,122,224 or a

Expressed in cash terms, the combined expenditure and food deficit can be covered by M11,462,042. Expressed in maize equivalent, the combined food and expenditure deficit can be covered by 1911MT.

#### 3.2 The Mountains

# 3.2.1 Main Livelihood Characteristics of 'very poor' and 'poor' households in this zone

- Own crop production contributes about 10- 20% of annual food energy consumed
- Agricultural labour contributes about 35 -40% of annual food energy consumed
- Food purchase contributes about 20 25% of annual food energy consumed
- Casual labour contributes about 15 -20% of the annual cash income
- Domestic labour contributes about 35 40% of annual cash income
- The main coping strategy in crisis situations is to look for more casual labour opportunities. However, the main income activities are agricultural related such as weeding and are depressed in the current year.
- Although domestic labour is a key source of income, expanding on it is not very likely due to the isolation of the zone from other areas that may offer labour opportunities

#### 3.2.2 Current Year situation

Although small amounts of rainfall were received staring in August, they were not sufficient to allow planting. Sufficient rains were in October, November and December but at some point the rains were too heavy and destroyed crops leading to replanting. Unfortunately, the replanted crops were caught up by frost resulting in poor yields. Interviewees indicated that they expected low maize production compared to last year but better sorghum, wheat and been production compared to last year.

Interviewees indicated the heavy rains following the 2007 drought period were not favourable to livestock and as a result several cattle died. This contributed to decline in livestock sales and milk production.

A few variations were identified for example; bean production was expected to be good in Mokhotlong but quite bad in Thaba Tseka

The traders mentioned that they never implemented the subsidy on maize flour due to the escalation fuel prices that would have resulted in selling at a loss. This implies that the intended purpose of the subsidy on the price of maize and selected food items was not achieved.

3.2.3 Problem specification for the Mountains

Key parameters	Percentage change
	from baseline
Maize production	65%
Sorghum production	45%
Beans	45%
Price of maize	300%
Food from agric labour	80%
Cash from agric labour	80%
Cash from crop sales	50%
Minimum Non staple basket	166%
Essential Expenditure Basket	126%
Price of cow	176%
Price of goat	140%
Price of Sheep	146%
Price of a chicken	160%

NB. 100% = normal baseline quantity or price

Labour exchange is the most important source of food for the 'very poor' and 'poor' households in this zone with agricultural labour alone contributing 35-40% of total annual food consumption. Given the poor agricultural season, these households may not be in position to meet the food requirements as well as maintain essential household expenditures.

As a consequence of the above, the 'very poor' households are likely to face food and expenditure deficit while the 'poor' households are likely to face a small expenditure deficit. The 'very poor' households with a population of 40,528 people are likely to face a food deficit of 37% per person and an expenditure deficit of M477 per household. The maize required to fill the food deficit is 3166MT and cash equivalent is M18,998,356. The total expenditure deficit for the 'very poor' households is M2,761,709 or a maize equivalent of 460MT. In addition, the 'poor' households with a population of 123,514 people are likely to face an expenditure deficit of M88 per household which translates to M1,358,660 or a maize equivalent of 226MT.

Expressed in cash terms, the combined expenditure and food deficit for the 'very poor' and the 'poor' can be covered by M23,118,725. Expressed in maize equivalent, the combined food and expenditure deficit can be covered by 3852MT.

#### 3.4 The Peri-Urban Areas

# 3.4.1 Main Livelihood Characteristics of 'very poor' and 'poor' households in this zone

- Own crop production contributes about 15 25% of annual food energy consumed
- Agricultural labour contributes about 10 15% of annual food energy consumed
- Food purchase contributes about 35 40% of annual food energy consumed
- Casual labour contributes about 15 40% of the annual cash income
- Sale of vegetables contributes about 15 30% of annual cash income
- Self employment including brewing contributes 15 -30% of annual cash income.
- The main coping strategies in crisis situations are to look for more casual labour opportunities and increase sale of vegetables. However, the main income activities are agricultural related such as weeding were affected by heavy rains in some months.

#### 3.4.2 Current Year Situation

Given the urban characteristics of the zone, food purchase is the main source of food contributing 35 – 40% of total household food consumed in a year. Food prices impact heavily on these households although compared to the rural areas, food price increases in peri – urban areas have been slightly lower.

Although crop production contributes only 15 - 25% of food consumed by the 'very poor' and 'poor', it is still a significant source and coupled with the contribution of agricultural labour the two sources contribute 25 - 40% of household annual consumption.

Like in most of the zones, planting was late and this exposed the crops to frost in April. In addition, there were dry spells in early February at a crucial stage for maize which resulted in some crop damage. In addition, heavy rainfall in some months halted weeding thus denying the poorer households income opportunities

#### 3.4.3 Problem specification for the Peri -Urban Areas

Key parameters	Percentage change from baseline
Maize production	80%
Sorghum production	70%
Beans	70%
Price of maize	250%
Food from agric labour	80%
Cash from agric labour	80%
Cash from crop sales	80%
Minimum Non staple basket	175%
Essential Expenditure Basket	126%
Price of Cow	200%
Price of Pig	128%
Price of Sheep	160%

NB. 100% = normal baseline quantity or price

The 'very poor' and 'poor' households in this zone rely heavily on casual labour for both food and income and purchase contribute almost 50% of annual food consumed. Although casual labour rates have doubled since 2007, the rises in price of food and other commodities outmatch this increase in labour rates. This means the capacity of the poorer households to access enough food as well as meet the essential household expenditures is reduced. One advantage this zone has is the close proximity to cheaper sources of food and this is reflected in the smaller percentage increase in the price of maize.

As a consequence of the above, the 'very poor' and the 'poor' households are likely to face food and expenditure deficit. The 'very poor' households with a population of 14,482 people are likely to face a food deficit of 50% per person and an expenditure deficit of M476 per household. The maize required to fill the food deficit is 1529MT and cash equivalent is M7,644,834. The total expenditure deficit for the 'very poor' households is M984762 or a maize equivalent of 197MT. The 'poor' households with a population of 34,075 people are likely to face a food deficit of 31% per person and an expenditure deficit of M476per household. The maize required to fill the food deficit is 2230MT and cash equivalent is M11,152,463 The total expenditure deficit for the 'poor' is M2,317,088 or a maize equivalent of 463MT

Expressed in cash terms, the combined expenditure and food deficit for the 'very poor' and the 'poor' can be covered by M22,099,147. Expressed in maize equivalent, the combined food and expenditure deficit can be covered by 4419MT.

# 3.5.1 Main Livelihood Characteristics of 'very poor' and 'poor' households in this zone

- Own crop production contributes about 20 35% of annual food energy consumed
- Agricultural labour contributes about 10 15% of annual food energy consumed
- Food purchase contributes about 20 30% of annual food energy consumed
- Casual labour contributes about 15 20% of the annual cash income
- Self employment including brewing contributes 20 -30% of annual cash income.
- The main coping strategies in crisis situations are to look for more casual labour opportunities. The poor also own some goats and increase sales in crisis times.

#### 3.5.2 Current Year situation

In December 2007 – January 2008 the area received very heavy rainfall and some parts of Maseru, Mafeteng and Mohale's Hoek experienced hailstorms which severely damaged crops.

In addition, the heavy rains caused water logging in some places, reducing weeding opportunities as well as leading to poor crop production. There was also an out break of anthrax in February which killed livestock and caused panic in the area and the whole country.

Agricultural inputs for block farming arrived late and this resulted in late planting and the consequences that come with it such as frost attack.

#### 3.5.3 Problem specification for the Southern Lowlands

Key parameters	Percentage change
	from baseline
Maize production	75%
Sorghum production	50%
Beans	50%
Price of maize	300%
Food from agric labour	75%
Cash from agric labour	75%
Cash from crop sales	75%
Minimum Non Staple Basket	172%
Essential Expenditure Basket	126%
Price of Cow	200%
Price of Goat	175%
Price of Sheep	145%

NB. 100% = normal baseline quantity or price

The low production, coupled with high food and other commodity prices, and limited income opportunities in weeding will have a serious affect on 'very poor' households' access to food and income in 2008/09. Given the reliance of the 'very poor' on casual labour for both food and income, and the fact that food purchases constitute close to one quarter of all food consumed annually, the current year problems will severely reduce their capacity to access enough food as well as meet the essential household expenditures.

As a consequence, the 'very poor' households with a population of 76,785 people are likely to face a food deficit of 33% per person and an expenditure deficit of M457 per household. The maize required to fill the food deficit is 5351MT and cash equivalent is M 32,103,112. The total expenditure deficit for the 'very poor' households is M7,018,149 or a maize equivalent of 1170MT.

Expressed in cash terms, the combined expenditure and food deficit for the 'very poor' can be covered by M39,121,161. Expressed in maize equivalent, the combined food and expenditure deficit can be covered by 6521MT.

#### 3.6 The Sengu River Valley

# 3.6.1 Main Livelihood Characteristics of 'very poor' and 'poor' households in this zone

- Own crop production contributes about 15 20% of annual food energy consumed
- Agricultural labour contributes about 15 20% of annual food energy consumed
- Food purchase contributes about 25 30% of annual food energy consumed
- Casual labour contributes about 15 25% of the annual cash income
- Piglet and sheep sales contribute 0 -30% of annual cash income.
- The main coping strategies in crisis situations are to look for more casual labour opportunities. The poor also own some pigs and sheep and increase sales in crisis times.

#### 3.5.2 Current Year situation

This zone received rains at the normal starting time (August – September) however the rains were so heavy that it could not allow most of the farmers to cultivate their fields due to water logging. The rains reduced in October allowing for planting to commence but in January there was a short dry spell that affected normal growth of most crops.

Households that could afford to purchase inputs were able to plant in early October while those who had to wait for inputs from government and other agencies, started plating later in November and these are the crops most affected by frost in April.

Livestock conditions were good at the time of the assessment mainly due to the adequate rains that improved pasture. However, animals used for draught power had not yet fully recovered from the 2007 drought and as such, affected the amount of land cultivated.

#### 3.5.3 Problem specification for the Senqu River valley

Key parameters	Percentage change
	from baseline
Maize production	80%
Sorghum production	80%
Beans	80%
Price of maize	300%
Food from agric labour	80%
Cash from agric labour	80%
Cash from crop sales	80%
Minimum Non staple basket	174%
Essential expenditure basket	126%
Price of cow	166%
Price of piglet	266%
Price of sheep	132%
Price of goat	133%
Price of Chicken	160%

NB. 100% = normal baseline quantity or price

The 'very poor' and 'poor' households in this zone purchase 25% - 30% of their total annual food intake and are therefore very vulnerable to food price increases. In addition, a significant portion of their annual food consumption is derived from labour exchange that is reduced this year due to low crop production. The combination of high food and other

commodity prices, constrained casual labour opportunities and low crop production this year, will reduce household capacity to access enough food as well as meet the essential household expenditures.

As a consequence of the above, the 'very poor' and the 'poor' households are likely to face food and expenditure deficit. The 'very poor' households with a population of 10,708 people are likely to face a food deficit of 33% per person and an expenditure deficit of M431 per household. The maize required to fill the food deficit is 746MT and cash equivalent is M4,476,879. The total expenditure deficit for the 'very poor' households is M923,022 or a maize equivalent of 154MT. The 'poor' households with a population of 29982 people are likely to face a food deficit of 9% per person and an expenditure deficit of M464 per household. The maize required to fill the food deficit is 570MT and cash equivalent is M3,418,707. The total expenditure deficit for the 'poor' is M2,318,619 or a maize equivalent of 386MT.

Expressed in cash terms, the combined expenditure and food deficit for the 'very poor' and the 'poor' can be covered by M11,137,227. Expressed in maize equivalent, the combined food and expenditure deficit can be covered by 1856MT.

#### **Conclusions and Recommendations**

- The current year problems of low production, high food and other commodity prices and reduced opportunities for income associated with agricultural production means that about 350,000 people will not be able to meet their annual food entitlements. Humanitarian assistance of varying levels will be needed to take these people through to the next harvest expected in late May 2009.
- According to the Food Balance Sheet produced by the Disaster Management Authority (DMA), commercial maize importers are planning to import enough grains to satisfy the national needs. It is therefore recommended that in addition to the food aid programmes that are already underway, cash transfer interventions should be implemented. As the LVAC analysis shows, the affected people will face both a food and expenditure deficit so responses need to address both the food and cash shortfall.
- Food prices are expected to continue rising and this will have serious implications on Lesotho where over 70% of the total cereal requirement for 2008/09 will be have to be purchased. This report has indicated that more people are likely to fall into the category requiring humanitarian assistance if food prices continue increase. It is therefore recommended that price monitoring activities be strengthened and regular analyses be conducted to check the impact of further price increases on household access to food.
- Crop production estimates in Lesotho is problematic due to several factors including out dated methods and lack of reliable data on total area planted. This problem was highlighted by the study on food security information systems in Lesotho. The study recommended that Lesotho should adopt the new estimation methods currently being implemented in Malawi and this will entail technical exchange visits and hands on support by a technician from Malawi and FAO. Efforts to harmonise the crop estimation methods should be speeded up to ensure the country has a more robust crop production estimation method to be used in 2009.
- In addition to the LVAC efforts to monitor food prices and impacts on household access to food, the National Nutrition Surveillance System needs to be strengthened to closely monitor changes in nutrition status of children that may be affected by high increases in food prices.

**Appendices** 

Appendix A

ANNUAL CEREAL BALANCE SHEET FOR THE 2008/09 MARKETING YEAR				
Annual Balance sheet as at 30th April, 2008				
Figures in (000)				
	<u>Maize</u>	<u>Wheat</u>	<u>Sorghum</u>	<u>Total</u>
1.Domestic Availability	73.09	47.38	8.45	128.91
1.1 Opening stock (01/April/2008)	4.11	37.05	0.00	41.16
Formal (Monitored)	4.11	37.05	0.00	41.16
On farm (Unmonitored)	0.00	0.00	0.00	0.00
1.2 Gross Harvest	68.98	10.33	8.45	87.75
2. Gross Domestic Requirements	241.54	79.88	22.82	344.24
2.1 Human, feed, other and losses	241.54	79.88	22.82	344.24
3. Domestic Short fall/Surplus	-168.45	-32.50	-14.38	-215.33
4.Total Planned Imports	134.00	95.00	0.00	229.00
4.1 Commercial Imports	134.00	95.00	0.00	229.00
4.2 Food Aid - Agency	0.00	0.00	0.00	0.00
4.3 Food Aid - Government	0.00	0.00	0.00	0.00
5. Imports Received	9.95	7.20	0.00	17.15
5.1 Commercial Imports Received	9.95	7.20	0.00	17.15
5.2 Food Aid Received - Agency	0.00	0.00	0.00	0.00
5.3 Food Aid- Government	0.00	0.00	0.00	0.00
6. Expected Imports	124.05	87.80	0.00	211.85
6.1 Commercial Imports Expected	124.05	87.80	0.00	211.85
6.2 Food Aid - Agency	0.00	0.00	0.00	0.00
6.3 Food Aid - Government	0.00	0.00	0.00	0.00
7. Uncovered Shortfall/import Gap	-34.45	62.50	-14.38	13.67
8.Current Stock Level as at 30th April , 2008	1.29	37.06	0.00	38.35

#### **Explanation of the FOOD BALANCE SHEET AS 30th APRIL, 2008**

The food Balance sheet is a tool which is used to estimate national cereal availability against the requirement. It is calculated every marketing year (1<sup>st</sup> April to 31<sup>st</sup> March.) It is updated monthly using the imports received.

- 1. **Opening stocks**: This is the stock held by the major millers at the end of March 2008. This stock becomes the opening stock for the beginning of the following marketing year (1<sup>st</sup> of April 2008).
- 2. **Gross harvest:** This was estimated by the Bureau of Statistics in collaboration with DMA and a team of agronomists from Ministry of Agriculture and Food Security during the crop forecasting conducted in April. These figures might change when the actual harvesting has been completed and the final crop production estimates have been done.
- 3. **Domestic Availability:** is made up of opening stock plus gross harvest.
- 4. **Gross Domestic Requirement:** has been calculated using kilocalorie required by each person for the period of one year. This year it has been decided to use this methodology so as to avoid inconsistency with other stakeholders particularly the Ministry of Agriculture and Food Security. The minimum kilograms estimated by FAO indicate the need of 127kg of maize, 42kg of wheat and 12 kg of sorghum per person per year as it appears in the Food Security Policy. The total population of 1.9 million has been used in calculating the domestic requirement. An assumption of 0.05% population growth rate has been applied over 1,892,415 estimated during the 2006 census. In the previous years apparent consumption method was used for calculating the cereal requirement. This method is affected by several factors including under reporting of imports received. The 'Kilo Calorie' method gives a more realistic picture given that it is based on food energy requirements of 2100Kilocalories per person pre day calculated for the whole year.
- 6. **Domestic Shortfall /surplus;** is the difference between domestic availability and the requirement.
- 7. **Planned imports:** these are commercial imports planned by the major millers, food aid imports planned by government and food aid agencies to cover the shortfall as in the normal years the country produces cereals which cannot sustain the population for the whole year.
- 8. **Received imports;** this section is used for monitoring purposes. It is updated monthly as the millers and food aid agencies receive the imports.
- 9. **Expected imports:** This is the difference between the planned imports and the received imports.
- 10. **Uncovered shortfall:** balance of the domestic shortfall/surplus and the planned imports.

The 2008/09 Food Balance Sheet reflects that food will be available in the country and there will also be a surplus of 13,670mt. However, this food will not be accessible to the vulnerable people because of the escalating food prices. As a result, assistance will still be needed to help the vulnerable groups with the ability to access food available in the market. It is also important to keep close monitoring on the food prices.

# Appendix B

### **Sample Assessment Form**

# **KEY PARAMETERS AND PROBLEM SPECIFICATION SHEET**

1.	Village:
2.	District:
3.	Livelihood Zone: Foot Hills
4.	Wealth group:
5.	Date:
6.	Interviewers:
7.	Baseline Year: 2004/2005

KEY PARAMETERS	'VERY POOR'	'POOR'	'MIDDLE'	'BETTER - OFF'
FOOD				
	Maize	Maize	Maize	Maize
	Sorghum	Sorghum	Sorghum	Sorghum
	Labour Exchange - Weeding	Labour Exchange - Weeding	Beans	Beans
				Milk
INCOME				
	Construction Income	Construction Income	Wool & Mohair	Wool & Mohair
	Brewing	Brewing	Sale of cattle	Sale of cattle
	Agric Income	Agric Income	Sale of goats	Sale of goats
	Remittances	Remittances	Sale of Sheep	Sale of Sheep
			Remittances	Remittances
			Brewing	Hiring out Equip.

### 8. PROBLEM SPECIFICATION

Livestock - Quantity	Baseline Quantity	Current/projected quantity	Current quantity as % of baseline quantity
Cattle (Herd size)			
Sheep (Herd size)			
Goats (Herd size)			
Pigs (Herd size)			

Notes:

Harvest	Baseline Quantity	Current/projected quantity	Current quantity as % of baseline quantity
Maize			
Sorghum			
Wheat			
Beans			
Potatoes			

# Notes:

Food Source – Quantity	Baseline Quantity	Current/projected quantity	Current quantity as % of baseline quantity
Maize			
Sorghum			
Labour Exchange - Weeding			
Beans			
Milk			

# Notes:

Income Source – Quantity	Baseline Quantity	Current/projected quantity	Current quantity as % of baseline quantity
Sale of cattle			
Wool & Mohair			
Brewing			
Construction Income			
Land Preparation			
Weeding			
Remittances			
Sale of goats			
Sale of Sheep			

### Notes:

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Income Source - Price	Baseline Price	Current/ projected price	Current price % baseline price	
Cattle				
Wool & Mohair				
Brewing				
Construction income				
Land Preparation				
Weeding				
Remittances				
Goat				
Sheep				

Notes:

Price Data: May 2008

Expenditure Items – Price of Min. Staple basket	May 2007 Price	May 2008 Price	Percentage change
Salt			
Soap			
Kerosene			
Grinding			
Matches			
Vaseline			

### Notes:

Flour									
Measure Kg			Maize % Change		Wheat		Sorghu	Sorghum	
	May 2007	May 2008		May 2007	May 2008		May 2007	May 2008	Change
1									
12.5									
25									
50									
80									

Notes:

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Livestock	_		
	May 2007	May 2008	% Change
Cattle			
Sheep			
Indigenous chicken			
Pig			
Piglet			

Notes:

Which commodities are mostly affected by price increases?

Which groups of households are mostly affected?

How do these households cope with the current situation?

How you bought subsidised maize meal in the past 6 months? If yes, which months?

Any comments on the current price situation?

# Appendix C: Analysis Sheets

Foo	th	ills	LZ
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BASELINE ACCESS				PROBLE	M SPECIFIC	CATION		RESPON	<u>SE</u>
Sources of Food : \	/ery Pooi	r HHs							
	Baseline	Expand	Max.	Problem	Food Intak	е	Con.prob	Max.curr	Curr.
	Access	-ability	Access	%norm	kcals/day		%norm	Access	Access
Cows' milk - wet	0%	0%	0%	100%	baseline:		100%	0%	0%
Own meat	2%	0%	2%	100%	2100		100%	2%	2%
Green cons maize	2%	0%	2%	80%	for analysis	3:	80%	2%	2%
Maize	8%	0%	8%	80%	2100		80%	6%	6%
Sorghum	6%	-6%	0%	70%			70%	0%	0%
Beans	0%	0%	0%	70%			70%	0%	0%
Labour: weeding	12%	0%	12%	80%			80%	9%	9%
Labour: other	4%	0%	4%	80%			80%	3%	3%
Wild food	1%	0%	1%	100%			100%	1%	1%
School feeding	5%	0%	5%	100%			100%	5%	5%
Food aid	20%	0%	20%	0%			0%	0%	0%
Purchase - non staple	3%	0%	3%	100%			100%	3%	3%
Purchase - staple	32%		84%	100%			100%	36%	36%
food deficit									33%
total	95%	-7%	140%					67%	
Income: Very Poor	HHs								
	Baseline	Expand	Max.	Problem	Comm.	Staple	Con.prob	Max.curr	Curr.
Cash	Access	-ability	Access	%norm	Price	Price	%norm	Access	Access
Wool/mohair	0	0	0	100%	118%	300%	118%	0	0
Cattle sales	0	0	0	100%	200%	300%	200%	0	0
Goat sale	0	0	0	100%	129%	300%	129%	0	0
Sheep sales	0	0	0	100%	160%	300%	160%	0	0
Maize sales	0	0	0	80%	138%	300%	110%	0	0
Sorghum sales	0	240	240	70%	138%	300%	97%	232	232
Beans sales	0	0	0	70%	138%	300%	97%	0	0
Ag.labour	834	0	834	80%	200%	300%	160%	1,334	1,334
Construction labour	180	27	207	100%	106%	300%	106%	219	219
Domestic labour	150	0	150	100%	106%	300%	106%	159	159
Remittances	420	0	420	100%	117%	300%	117%	491	491
Self-employment	500	0	500	70%	200%	300%	140%	700	700
total:	2,084	267	2,351					3,136	3,136
<b>Expenditure: Very</b>	Poor HHs	S							
	Baseline			Problem	Comm.		Con.prob	Max.curr	Curr.
Cash	Expend	1		%norm	Price		%norm	Expend	Expend
min.non-staple	213			100%	177%		177%	377	377
essential	452			100%	126%		126%	0	0
staple	816							2,759	2,759
other	603								0
total:	2,084							3,136	3,136
exp. deficit								570	570

Mountains LZ BASELINE ACCESS				PROBLE	M SPECIFIC	ATION		RESPON	<u>SE</u>
Sources of Food :	Verv Po	or HHs							
	Baseline	Expand	Max.	Problem	Food Intak	е	Con.prob	Max.curr	Curr.
	Access	-ability	Access	%norm	kcals/day		%norm	Access	Access
Cows' milk - wet	0%	0%	0%	100%	baseline:		100%	0%	0%
Cows' milk - dry	0%	0%	0%	100%	2100		100%	0%	0%
Own meat	0%	0%	0%	100%	for analysis	8:	100%	0%	0%
Maize	10%	0%	10%	65%	2100		65%	7%	7%
Sorghum	0%	0%	0%	45%			45%	0%	0%
Wheat	0%	0%	0%	100%			100%	0%	0%
Beans	1%	0%	1%	45%			45%	0%	0%
Peas	0%	0%	0%	45%			45%	0%	0%
Labour: weeding	22%	0%	22%	80%			80%	18%	18%
Labour: harvesting	5%	0%	5%	80%			80%	4%	4%
Labour: other	7%	0%	7%	80%			80%	6%	6%
Gifts	0%	0%	0%	100%			100%	0%	0%
Wild food	2%	0%	2%	100%			100%	2%	2%
School feeding	7%	0%	7%	100%			100%	7%	7%
Food aid	20%	0%	20%	0%			0%	0%	0%
Purchase - non	2%	0%	1%	100%			100%	1%	1%
Purchase - staple	22%		46%	100%			100%	19%	19%
food deficit									37%
total	97%	0%	121%					63%	
Income : Very Poo									
	Baseline	Expand	Max.	Problem	Comm.	Staple	Con.prob	Max.curr	Curr.
Cash	Access	-ability	Access	%norm	Price	Price	%norm	Access	Access
Cows' milk sales -	0	Ó	0	100%	100%	300%	100%	0	0
Wool/mohair	0	0	0	100%	150%	300%	150%	0	0
Cattle sales	0	0	Ö	100%	176%	300%	176%	Ö	Ö
Goat sales	0	0	0	100%	150%	300%	150%	Ö	0
Sheep sales	0	0	0	100%	146%	300%	146%	ő	0
Chicken sales	50	0	50	100%	160%	300%	160%	80	80
Maize sales	0	0	0	65%	160%	300%	104%	0	0
Sorghum sales	0	0	0	45%	160%	300%	72%	o o	0
Wheat sales	0	0	0	100%	160%	300%	160%	0	0
Beans sales	160	0	160	45%	160%	300%	72%	115	115
Pea sales	0	0	0	45%	160%	300%	72%	0	0
Potatoes sales	0	0	0	100%	160%	300%	160%	0	0
Vegetables sales	90	0	90	100%	160%	300%	160%	144	144
Ag. Labour	0	0	0	100%	200%	300%	200%	0	0
Construction labour	340	51	391	100%	106%	300%	106%	414	414
Domestic labour	614	74	688	100%	106%	300%	106%	729	729
Employment (and/or	0	0	000	100%	106%	300%	106%	0	729
Self-employment	240	0	240	120%	200%	300%	240%	576	576
total:	1,494	125	1,619	120/0	200 /0	JUU /0	Z4U /0	2,059	2,059
Expenditure : Ver			1,019					2,009	2,009
Expenditure . ver	Baseline	15		Problem	Comm.		Con.prob	Max.curr	Curr.
Cash	Expend			%norm	Price		%norm	Expend	Expend
min.non-staple	248			100%	166%		166%	412	412
	379				126%				_
essential				100%	120%		126%	1 647	1 647
staple	640 227							1,647	1,647
other								2.050	2.050
total:	1,494							2,059	2,059
exp. deficit				l				477	477

Mountains LZ BASELINE ACCESS				PROBLE	M SPECIFIC	ATION		RESPONS	SE
Sources of Food : I	Poor HHs	<u> </u>							<u></u>
Sources of Food . I	Baseline	Expand	Max.	Problem	Food Intak	е	Con.prob	Max.curr	Curr.
	Access	-ability	Access	%norm	kcals/day		%norm	Access	Access
Cows' milk - wet	0%	0%	0%	100%	baseline:		100%	0%	0%
Cows' milk - dry	0%	0%	0%	100%	2100		100%	0%	0%
Own meat	0%	0%	0%	100%	for analysis	3:	100%	0%	0%
Maize	21%	0%	21%	65%	2100		65%	13%	13%
Sorghum	0%	0%	0%	45%	2.00		45%	0%	0%
Wheat	0%	0%	0%	100%			100%	0%	0%
Beans	2%	0%	2%	45%			45%	1%	1%
Peas	0%	0%	0%	45%			45%	0%	0%
Labour: weeding	19%	0%	19%	80%			80%	15%	15%
Labour: harvesting	4%	0%	4%	80%			80%	3%	3%
Labour: other	16%	0%	16%	80%			80%	13%	13%
Gifts	4%	0%	4%	100%			100%	4%	4%
Wild food	2%	0%	2%	100%			100%	2%	2%
School feeding	6%	0%	6%	100%			100%	6%	6%
Food aid	0%	0%	0%	0%			0%	0%	0%
Purchase - non staple	2%	0%	1%	100%			100%	1%	1%
Purchase - staple	22%	0 70	86%	100%			100%	46%	41%
food deficit	2270		00%	100%			100%	40%	0%
total	98%	l 0%	162%					106%	0%
	90%	0%	102%					100%	
Income : Poor HHs	Baseline	Expand	Max.	Problem	Comm.	Stanla	Con.prob	Max.curr	Curr.
Cash	Access	-ability	Access	%norm	Price	Staple Price	%norm	Access	Access
Cows' milk sales - wet		•		100%	100%	300%			_
Wool/mohair	0	0	0	100%	150%	300%	150%	0	0
		0	0	100%	176%	300%	176%	0	0
Cattle sales Goat sales	0	338	0 338	100%	150%	300%	150%	0	0 506
Sheep sales								506	506
	0 50	750	750	100%	146%	300%	146%	1,095	1,095
Chicken sales		0	50	100%	160%	300%	160%	80	80
Maize sales	0	0	0	65%	160%	300%	104%	0	0
Sorghum sales	0	0	0	45%	160%	300%	72%	0	0
Wheat sales	0	0	0	100%	160%	300%	160%	0	0
Beans sales	0	0	0	45%	160%	300%	72%	0	0
Pea sales	0	0	0	45%	160%	300%	72%	0	0
Potatoes sales	0	0	0	100%	160%	300%	160%	0	0
Vegetables sales	200	0	200	100%	160%	300%	160%	320	320
Ag. Labour	387	0	387	100%	200%	300%	200%	774	774
Construction labour	40	6	46	100%	106%	300%	106%	49	49
Domestic labour	786	41	827	100%	106%	300%	106%	876	876
Employment (and/or	0	0	0	100%	106%	300%	106%	0	0
Self-employment	600	0	600	120%	200%	300%	240%	1,440	1,440
total:	2,063	1,134	3,197					5,140	5,140
<b>Expenditure: Poor</b>	HHS			Dealthea	0		0	Ma	0
0 1-	Baseline			Problem	Comm.		Con.prob	Max.curr	Curr.
Cash	Expend	Ī		%norm	Price		%norm	Expend	Expend
min.non-staple	284			100%	166%		166%	471	471
essential	516			100%	126%		126%	0	562
staple	733							4,669	4,107
other	530								0
	0 000								
total: exp. deficit	2,063							5,140 650	5,140 88

BASELINE ACCESS				PROBLE	M SPECIFIC	<u>ATION</u>		RESPONS	<u>SE</u>
Sources of Food :									_
	Baseline	Expand	Max.	Problem	Food Intake	9	Con.prob	Max.curr	Curr
	Access	-ability	Access	%norm	kcals/day		%norm	Access	Acces
Cows' milk - wet	0%	0%	0%	100%	baseline:		100%	0%	0%
Own meat	0%	0%	0%	100%	2100		100%	0%	0%
Green cons maize	4%	0%	4%	80%	for analysis	:	80%	3%	3%
Maize	7%	0%	7%	80%	2100		80%	5%	5%
Sorghum	2%	-2%	0%	70%			70%	0%	0%
Beans	0%	0%	0%	70%			70%	0%	0%
Pumpkin	0%	0%	0%	100%			100%	0%	0%
Vegetables 1	0%	0%	0%	100%			100%	0%	0%
Vegetables 2	0%	0%	0%	100%			100%	0%	0%
Labour: weeding	10%	0%	10%	80%			80%	8%	8%
Labour: harvesting	5%	0%	5%	80%			80%	4%	4%
Labour: construction,	0%	0%	0%	100%			100%	0%	0%
Gifts	3%	0%	3%	100%			100%	3%	3%
School feeding	6%	0%	6%	100%			100%	6%	6%
Food aid	35%	0%	35%	0%			0%	0%	0%
Purchase - non staple	1%	1%	2%	100%			100%	2%	2%
Purchase - staple	24%		38%	100%			100%	18%	18%
food deficit									50%
total	98%	-1%	110%					50%	
Cash Cattle sales Pig sales Sheep sales	Baseline Access 0	Expand -ability 0	Max. Access 0 0	%norm 100%	Comm. Price 200%	Staple Price 250%	Con.prob %norm 200%	Max.curr Access 0	Cur Acces
Maize sales	0 0	0 0 70	0	100% 100% 80% 70%	128% 160% 138% 138%	250% 250% 250% 250%	128% 160% 110% 97%	0 0 0 68	(
Maize sales Sorghum sales	0	0 70	0	100% 80% 70%	160% 138% 138%	250% 250% 250%	160% 110% 97%	0	6
Maize sales Sorghum sales Beans sales	0 0	0	0 0 70	100% 80%	160% 138%	250% 250%	160% 110%	0 0 68	68 68
Maize sales Sorghum sales Beans sales Vegetable sales 1	0 0 0 245	0 70 0	0 0 70 0 245	100% 80% 70% 70% 100%	160% 138% 138% 138% 138%	250% 250% 250% 250% 250%	160% 110% 97% 97% 138%	0 0 68 0 338	68 68 338
Maize sales Sorghum sales Beans sales Vegetable sales 1 Vegetable sales 2	0 0 0 245 120	0 70 0	0 0 70 0 245 120	100% 80% 70% 70% 100% 100%	160% 138% 138% 138% 138% 138%	250% 250% 250% 250% 250% 250%	160% 110% 97% 97% 138% 138%	0 0 68 0 338 166	68 68 338 160
Maize sales Sorghum sales Beans sales Vegetable sales 1 Vegetable sales 2 Ag. Labour	0 0 0 245 120 450	0 70 0 0 0	0 70 0 245 120 450	100% 80% 70% 70% 100% 100% 80%	160% 138% 138% 138% 138% 138% 200%	250% 250% 250% 250% 250% 250% 250%	160% 110% 97% 97% 138% 138% 160%	0 0 68 0 338 166 720	68 68 ( 338 166 720
Maize sales Sorghum sales Beans sales Vegetable sales 1 Vegetable sales 2 Ag. Labour Construction labour	0 0 0 245 120 450	0 70 0 0 0 0	0 0 70 0 245 120 450	100% 80% 70% 70% 100% 100% 80% 100%	160% 138% 138% 138% 138% 138% 200% 106%	250% 250% 250% 250% 250% 250% 250% 250%	160% 110% 97% 97% 138% 138% 160% 106%	0 0 68 0 338 166 720 122	68 ( 338 166 720 122
Maize sales Sorghum sales Beans sales Vegetable sales 1 Vegetable sales 2 Ag. Labour Construction labour Domestic labour	0 0 0 245 120 450 100 91	0 70 0 0 0 0 0 15 14	0 70 0 245 120 450 115	100% 80% 70% 70% 100% 100% 80% 100%	160% 138% 138% 138% 138% 138% 200% 106%	250% 250% 250% 250% 250% 250% 250% 250%	160% 110% 97% 97% 138% 138% 160% 106%	0 0 68 0 338 166 720 122	68 68 338 166 720 122
Maize sales Sorghum sales Beans sales Vegetable sales 1 Vegetable sales 2 Ag. Labour Construction labour Domestic labour	0 0 0 245 120 450 100 91	0 70 0 0 0 0	0 70 0 245 120 450 115 105	100% 80% 70% 70% 100% 100% 100% 100%	160% 138% 138% 138% 138% 138% 200% 106% 106%	250% 250% 250% 250% 250% 250% 250% 250%	160% 110% 97% 97% 138% 138% 160% 106% 106%	0 0 68 0 338 166 720 122 111	68 68 338 166 720 122 117
Maize sales Sorghum sales Beans sales Vegetable sales 1 Vegetable sales 2 Ag. Labour Construction labour Domestic labour Employment (and/or Remittances	0 0 0 245 120 450 100 91 0	0 70 0 0 0 0 0 15 14 0	0 70 0 245 120 450 115 105 0 50	100% 80% 70% 70% 100% 100% 100% 100% 100%	160% 138% 138% 138% 138% 138% 200% 106% 106% 137%	250% 250% 250% 250% 250% 250% 250% 250%	160% 110% 97% 97% 138% 138% 160% 106% 106% 137%	0 0 68 0 338 166 720 122 111 0 69	() () () () () () () () () () () () () (
Maize sales Sorghum sales Beans sales Vegetable sales 1 Vegetable sales 2 Ag. Labour Construction labour Domestic labour Employment (and/or Remittances Self-employment	0 0 0 245 120 450 100 91 0 50	0 70 0 0 0 0 15 14 0 0	0 0 70 0 245 120 450 115 105 0 50	100% 80% 70% 100% 100% 100% 100% 100% 100% 80%	160% 138% 138% 138% 138% 138% 200% 106% 106% 137% 110%	250% 250% 250% 250% 250% 250% 250% 250%	160% 110% 97% 97% 138% 138% 160% 106% 106% 137% 88%	0 0 68 0 338 166 720 122 111 0 69	68 10 338 166 720 122 11 69 158
Maize sales Sorghum sales Beans sales Vegetable sales 1 Vegetable sales 2 Ag. Labour Construction labour Domestic labour Employment (and/or Remittances Self-employment Petty trade	0 0 0 245 120 450 100 91 0 50 180	0 70 0 0 0 0 15 14 0 0	0 0 70 0 245 120 450 115 105 0 50	100% 80% 70% 100% 100% 100% 100% 100% 100% 100	160% 138% 138% 138% 138% 200% 106% 106% 110% 110%	250% 250% 250% 250% 250% 250% 250% 250%	160% 110% 97% 97% 138% 138% 160% 106% 106% 137% 88% 106%	0 0 68 0 338 166 720 122 111 0 69 158	68 158 166 720 122 117 (69 158
Maize sales Sorghum sales Beans sales Vegetable sales 1 Vegetable sales 2 Ag. Labour Construction labour Domestic labour Employment (and/or Remittances Self-employment Petty trade Gifts / social support	0 0 0 245 120 450 100 91 0 50	0 70 0 0 0 0 15 14 0 0	0 0 70 0 245 120 450 115 105 0 50	100% 80% 70% 100% 100% 100% 100% 100% 100% 80%	160% 138% 138% 138% 138% 138% 200% 106% 106% 137% 110%	250% 250% 250% 250% 250% 250% 250% 250%	160% 110% 97% 97% 138% 138% 160% 106% 106% 137% 88%	0 0 68 0 338 166 720 122 111 0 69	6 33 16 72 12 11 6 15
Maize sales Sorghum sales Beans sales Vegetable sales 1 Vegetable sales 2 Ag. Labour Construction labour Domestic labour Employment (and/or Remittances	0 0 0 245 120 450 100 91 0 50 180 0 75 1,311	0 70 0 0 0 0 15 14 0 0 0	0 0 70 0 245 120 450 115 105 0 50 180 0 75	100% 80% 70% 100% 100% 100% 100% 100% 100% 100	160% 138% 138% 138% 138% 138% 200% 106% 106% 106% 106% 100%	250% 250% 250% 250% 250% 250% 250% 250%	160% 110% 97% 97% 138% 138% 160% 106% 106% 137% 88% 106% 100%	0 0 68 0 338 166 720 122 111 0 69 158 0 75 1,826	69 336 720 122 11 69 156 79
Maize sales Sorghum sales Beans sales Vegetable sales 1 Vegetable sales 2 Ag. Labour Construction labour Domestic labour Employment (and/or Remittances Self-employment Petty trade Gifts / social support total:	0 0 0 245 120 450 100 91 0 50 180 0 75	0 70 0 0 0 0 15 14 0 0 0	0 0 70 0 245 120 450 115 105 0 50 180 0 75	100% 80% 70% 100% 100% 100% 100% 100% 100% 100	160% 138% 138% 138% 138% 200% 106% 106% 110% 110%	250% 250% 250% 250% 250% 250% 250% 250%	160% 110% 97% 97% 138% 138% 160% 106% 106% 137% 88% 106%	0 0 68 0 338 166 720 122 111 0 69 158 0 75	66 333 166 720 112 111 69 156
Maize sales Sorghum sales Beans sales Vegetable sales 1 Vegetable sales 2 Ag. Labour Construction labour Domestic labour Employment (and/or Remittances Self-employment Petty trade Gifts / social support total:  Expenditure: Verv	0 0 0 245 120 450 100 91 0 50 180 0 75 1,311	0 70 0 0 0 0 15 14 0 0 0	0 0 70 0 245 120 450 115 105 0 50 180 0 75	100% 80% 70% 100% 100% 100% 100% 100% 100% 100	160% 138% 138% 138% 138% 138% 200% 106% 106% 106% 106% 100%	250% 250% 250% 250% 250% 250% 250% 250%	160% 110% 97% 97% 138% 138% 160% 106% 106% 106% 106% 100% Con.prob %norm	0 0 68 0 338 166 720 122 111 0 69 158 0 75 1,826	66 333 166 720 112 111 66 156 75
Maize sales Sorghum sales Beans sales Vegetable sales 1 Vegetable sales 2 Ag. Labour Construction labour Domestic labour Employment (and/or Remittances Self-employment Petty trade Gifts / social support total:  Expenditure: Verv Cash	0 0 0 245 120 450 100 91 0 50 180 0 75 1,311 Poor HH Baseline Expend	0 70 0 0 0 0 15 14 0 0 0	0 0 70 0 245 120 450 115 105 0 50 180 0 75	100% 80% 70% 100% 100% 100% 100% 100% 100% 100	160% 138% 138% 138% 138% 138% 200% 106% 106% 106% 100%	250% 250% 250% 250% 250% 250% 250% 250%	160% 110% 97% 97% 138% 138% 160% 106% 106% 106% 106% 100%	0 0 68 0 338 166 720 122 111 0 69 158 0 75 1,826	66 333 166 720 112 11 66 156 75 1,820
Maize sales Sorghum sales Beans sales Vegetable sales 1 Vegetable sales 2 Ag. Labour Construction labour Domestic labour Employment (and/or Remittances Self-employment Petty trade Gifts / social support total:  Expenditure: Verv Cash min.non-staple	0 0 0 245 120 450 100 91 0 50 180 0 75 1,311	0 70 0 0 0 0 15 14 0 0 0	0 0 70 0 245 120 450 115 105 0 50 180 0 75	100% 80% 70% 100% 100% 100% 100% 100% 100% 100	160% 138% 138% 138% 138% 138% 200% 106% 106% 106% 100%  Comm. Price	250% 250% 250% 250% 250% 250% 250% 250%	160% 110% 97% 97% 138% 138% 160% 106% 106% 106% 106% 100% Con.prob %norm	0 0 68 0 338 166 720 122 111 0 69 158 0 75 1,826	66 333 166 720 112 111 65 156 1,820 Curi Expen
Maize sales Sorghum sales Beans sales Vegetable sales 1 Vegetable sales 2 Ag. Labour Construction labour Domestic labour Employment (and/or Remittances Self-employment Petty trade Gifts / social support total:  Expenditure: Verv Cash min.non-staple essential	0 0 0 245 120 450 100 91 0 50 180 0 75 1,311 Poor HH Baseline Expend	0 70 0 0 0 0 15 14 0 0 0	0 0 70 0 245 120 450 115 105 0 50 180 0 75	100% 80% 70% 70% 100% 100% 100% 100% 100% 100%	160% 138% 138% 138% 138% 138% 138% 200% 106% 106% 106% 100%  Comm. Price 175%	250% 250% 250% 250% 250% 250% 250% 250%	160% 110% 97% 97% 138% 138% 160% 106% 106% 106% 137% 88% 106% 100% Con.prob %norm 175%	0 0 68 0 338 166 720 122 111 0 69 158 0 75 1,826 Max.curr Expend 497	66 333 166 720 112 11 69 156 79 1,820
Maize sales Sorghum sales Beans sales Vegetable sales 1 Vegetable sales 2 Ag. Labour Construction labour Domestic labour Employment (and/or Remittances Self-employment Petty trade Gifts / social support total:  Expenditure: Verv Cash min.non-staple essential staple	0 0 0 245 120 450 100 91 0 50 180 0 75 1,311 Poor HH Baseline Expend 284 378	0 70 0 0 0 0 15 14 0 0 0	0 0 70 0 245 120 450 115 105 0 50 180 0 75	100% 80% 70% 70% 100% 100% 100% 100% 100% 100%	160% 138% 138% 138% 138% 138% 138% 200% 106% 106% 106% 100%  Comm. Price 175%	250% 250% 250% 250% 250% 250% 250% 250%	160% 110% 97% 97% 138% 138% 160% 106% 106% 106% 137% 88% 106% 100% Con.prob %norm 175%	0 0 68 0 338 166 720 122 111 0 69 158 0 75 1,826 Max.curr Expend 497 0	6 33 16 72 12 11 6 15 7 1,82 Curi Expen-
Maize sales Sorghum sales Beans sales Vegetable sales 1 Vegetable sales 2 Ag. Labour Construction labour Domestic labour Employment (and/or Remittances Self-employment Petty trade Gifts / social support total:	0 0 0 245 120 450 100 91 0 50 180 0 75 1,311 Poor HH Baseline Expend 284 378	0 70 0 0 0 0 15 14 0 0 0	0 0 70 0 245 120 450 115 105 0 50 180 0 75	100% 80% 70% 70% 100% 100% 100% 100% 100% 100%	160% 138% 138% 138% 138% 138% 138% 200% 106% 106% 106% 100%  Comm. Price 175%	250% 250% 250% 250% 250% 250% 250% 250%	160% 110% 97% 97% 138% 138% 160% 106% 106% 106% 137% 88% 106% 100% Con.prob %norm 175%	0 0 68 0 338 166 720 122 111 0 69 158 0 75 1,826 Max.curr Expend 497 0	6 33 16 72 12 11 6 15 7 1,82 Curr Expen

Peri Urban LZ BASELINE ACCESS	<u>.</u>			PROBLE	M SPECIFIC	CATION		RESPONSE		
Sources of Food: F	oor HHs									
	Baseline	Expand	Max.	Problem	Food Intak	е	Con.prob	Max.curr	Curr.	
	Access	-ability	Access	%norm	kcals/day		%norm	Access	Access	
Cows' milk - wet	0%	0%	0%	100%	baseline:	i	100%	0%	0%	
Own meat	0%	0%	0%	100%	2100		100%	0%	0%	
Green cons maize	4%	0%	4%	80%	for analysis	S:	80%	3%	3%	
Maize	11%	0%	11%	80%	2100		80%	9%	9%	
Sorghum	7%	-7%	0%	70%			70%	0%	0%	
Beans	2%	0%	2%	70%			70%	2%	2%	
Pumpkin	0%	0%	0%	100%			100%	0%	0%	
Vegetables 1	0%	0%	0%	100%			100%	0%	0%	
Vegetables 2	0%	0%	0%	100%			100%	0%	0%	
Labour: weeding	7%	0%	7%	80%			80%	5%	5%	
Labour: harvesting	5%	0%	5%	80%			80%	4%	4%	
Labour: construction,	5%	0%	5%	100%			100%	5%	5%	
Gifts	0%	0%	0%	100%			100%	0%	0%	
School feeding	6%	0%	6%	100%			100%	6%	6%	
Food aid	12%	0%	12%	0%			0%	0%	0%	
Purchase - non staple	3%	-1%	2%	100%			100%	2%	2%	
Purchase - staple	37%		81%	100%	'		100%	33%	33%	
food deficit	0.70								31%	
total	99%	-7%	135%					69%	0.70	
Income : Poor HHs	0070	. , ,	.0070					3375		
modine : 1 doi mis	Baseline	Expand	Max.	Problem	Comm.	Staple	Con.prob	Max.curr	Curr.	
Cash		-ability	Access	%norm	Price	Price	%norm	Access	Access	
Cattle sales	Access 0	-ability 0	0	100%	242%	250%			0	
Pig sales	0	0		100%	128%	250%	128%	0	_	
Sheep sales	0	0	0	100%	160%	250% 250%	160%	0	0	
	0		0		138%	250% 250%		_	-	
Maize sales	0	0 250	0	80%			110%	0 242	0 242	
Sorghum sales			250	70%	138%	250%	97%			
Beans sales	0	0	0	70%	138%	250%	97%	0	100	
Vegetable sales 1	140	0	140	100%	138%	250%	138%	193	193	
Vegetable sales 2	60	0	60 225	100% 80%	138%	250% 250%	138%	83	83	
Ag. Labour	225	0	シンち	80%		2511%	160%	360	360	
	450				200%				400	
	150	23	173	100%	106%	250%	106%	183		
Domestic labour	450	23 20	173 470	100% 100%	106% 106%	250% 250%	106% 106%	183 498	498	
Domestic labour Employment (and/or	450 0	23 20 0	173 470 0	100% 100% 100%	106% 106% 106%	250% 250% 250%	106% 106% 106%	183 498 0	498 0	
Domestic labour Employment (and/or Remittances	450 0 120	23 20 0 0	173 470 0 120	100% 100% 100% 100%	106% 106% 106% 137%	250% 250% 250% 250%	106% 106% 106% 137%	183 498 0 164	498 0 164	
Domestic labour Employment (and/or Remittances Self-employment	450 0 120 720	23 20 0 0	173 470 0 120 720	100% 100% 100% 100% 80%	106% 106% 106% 137% 110%	250% 250% 250% 250% 250%	106% 106% 106% 137% 88%	183 498 0 164 634	498 0 164 634	
Domestic labour Employment (and/or Remittances Self-employment Petty trade	450 0 120 720 375	23 20 0 0 0	173 470 0 120 720 375	100% 100% 100% 100% 80% 100%	106% 106% 106% 137% 110% 106%	250% 250% 250% 250% 250% 250%	106% 106% 106% 137% 88% 106%	183 498 0 164 634 398	498 0 164 634 398	
Domestic labour Employment (and/or Remittances Self-employment Petty trade Gifts / social support	450 0 120 720 375 150	23 20 0 0 0 0	173 470 0 120 720 375 150	100% 100% 100% 100% 80%	106% 106% 106% 137% 110%	250% 250% 250% 250% 250%	106% 106% 106% 137% 88%	183 498 0 164 634 398 150	498 0 164 634 398 150	
Employment (and/or Remittances Self-employment Petty trade Gifts / social support total:	450 0 120 720 375 150 2,390	23 20 0 0 0	173 470 0 120 720 375	100% 100% 100% 100% 80% 100%	106% 106% 106% 137% 110% 106%	250% 250% 250% 250% 250% 250%	106% 106% 106% 137% 88% 106%	183 498 0 164 634 398	498 0 164 634 398 150	
Domestic labour Employment (and/or Remittances Self-employment Petty trade Gifts / social support total:	450 0 120 720 375 150 2,390 <b>HHs</b>	23 20 0 0 0 0	173 470 0 120 720 375 150	100% 100% 100% 100% 80% 100%	106% 106% 106% 137% 110% 106% 100%	250% 250% 250% 250% 250% 250%	106% 106% 106% 137% 88% 106% 100%	183 498 0 164 634 398 150	498 0 164 634 398 150	
Domestic labour Employment (and/or Remittances Self-employment Petty trade Gifts / social support total: Expenditure: Poor	450 0 120 720 375 150 2,390 <b>HHs</b> Baseline	23 20 0 0 0 0	173 470 0 120 720 375 150	100% 100% 100% 100% 80% 100%	106% 106% 106% 137% 110% 106% 100%	250% 250% 250% 250% 250% 250%	106% 106% 106% 137% 88% 106%	183 498 0 164 634 398 150	498 0 164 634 398 150 2,904 Curr.	
Domestic labour Employment (and/or Remittances Self-employment Petty trade Gifts / social support total: Expenditure: Poor	450 0 120 720 375 150 2,390 <b>HHs</b>	23 20 0 0 0 0	173 470 0 120 720 375 150	100% 100% 100% 100% 80% 100%	106% 106% 106% 137% 110% 106% 100%	250% 250% 250% 250% 250% 250%	106% 106% 106% 137% 88% 106% 100%	183 498 0 164 634 398 150 2,904	498 0 164 634 398 150 2,904 Curr.	
Domestic labour Employment (and/or Remittances Self-employment Petty trade Gifts / social support total: Expenditure : Poor Cash	450 0 120 720 375 150 2,390 <b>HHs</b> Baseline	23 20 0 0 0 0	173 470 0 120 720 375 150	100% 100% 100% 100% 80% 100% Problem %norm 100%	106% 106% 106% 137% 110% 106% 100% Comm. Price	250% 250% 250% 250% 250% 250%	106% 106% 106% 137% 88% 106% 100%	183 498 0 164 634 398 150 2,904	498 0 164 634 398 150 2,904 Curr. Expend	
Domestic labour Employment (and/or Remittances Self-employment Petty trade Gifts / social support total: Expenditure : Poor Cash min.non-staple	450 0 120 720 375 150 2,390 <b>HHs</b> Baseline Expend	23 20 0 0 0 0	173 470 0 120 720 375 150	100% 100% 100% 100% 80% 100% 100%	106% 106% 106% 137% 110% 106% 100% Comm.	250% 250% 250% 250% 250% 250%	106% 106% 106% 137% 88% 106% 100% Con.prob %norm	183 498 0 164 634 398 150 2,904 Max.curr Expend	498 0 164 634 398 150 2,904 Curr. Expend	
Domestic labour Employment (and/or Remittances Self-employment Petty trade Gifts / social support total: Expenditure : Poor  Cash min.non-staple essential	450 0 120 720 375 150 2,390 <b>HHs</b> Baseline Expend	23 20 0 0 0 0	173 470 0 120 720 375 150	100% 100% 100% 100% 80% 100% Problem %norm 100%	106% 106% 106% 137% 110% 106% 100% Comm. Price	250% 250% 250% 250% 250% 250%	106% 106% 106% 137% 88% 106% 100% Con.prob %norm 175%	183 498 0 164 634 398 150 2,904 Max.curr Expend 497 0	498 0 164 634 398 150 2,904 Curr. Expend 497	
Domestic labour Employment (and/or Remittances Self-employment Petty trade Gifts / social support total: Expenditure : Poor  Cash min.non-staple essential staple	450 0 120 720 375 150 2,390 <b>HHS</b> Baseline Expend 284 378	23 20 0 0 0 0	173 470 0 120 720 375 150	100% 100% 100% 100% 80% 100% Problem %norm 100%	106% 106% 106% 137% 110% 106% 100% Comm. Price	250% 250% 250% 250% 250% 250%	106% 106% 106% 137% 88% 106% 100% Con.prob %norm 175%	183 498 0 164 634 398 150 2,904 Max.curr Expend 497	498 0 164 634 398 150 2,904 Curr. Expend 497	
Construction labour Domestic labour Employment (and/or Remittances Self-employment Petty trade Gifts / social support total: Expenditure : Poor Cash min.non-staple essential staple other total:	450 0 120 720 375 150 2,390 <b>HHS</b> Baseline Expend 284 378 1,103	23 20 0 0 0 0	173 470 0 120 720 375 150	100% 100% 100% 100% 80% 100% Problem %norm 100%	106% 106% 106% 137% 110% 106% 100% Comm. Price	250% 250% 250% 250% 250% 250%	106% 106% 106% 137% 88% 106% 100% Con.prob %norm 175%	183 498 0 164 634 398 150 2,904 Max.curr Expend 497 0	183 498 0 164 634 398 150 2,904 Curr. Expend 497 0 2,407 0 2,904	

# **Southern Lowland LZ**

BASELINE ACCESS				PROBLEM SPECIFICATION				<u>RESPONSE</u>	
Sources of Food : Ve									
	Baseline	Expand	Max.	Problem	Food Intak	е	Con.prob	Max.curr	Curr.
<u> </u>	Access	-ability	Access	%norm	kcals/day		%norm	Access	Access
Cows' milk - wet	0%	0%	0%	100%	baseline:	1	100%	0%	0%
Own meat	0%	0%	0%	100%	2100		100%	0%	0%
Green cons maize	3%	0%	3%	75%	for analysis	S:	75%	3%	3%
Maize	11%	0%	11%	75%	2100		75%	9%	9%
Sorghum	4%	-4%	0%	50%			50%	0%	0%
Beans	2%	0%	2%	50%			50%	1%	1%
Labour: weeding	15%	0%	15%	75%			75%	11%	11%
Labour: other	3%	0%	3%	75%			75%	2%	2%
Gifts	5%	0%	5%	100%			100%	5%	5%
Wild food	1%	0%	1%	100%			100%	1%	1%
School feeding	5%	0%	5%	100%			100%	5%	5%
Food aid	14%	0%	14%	0%			0%	0%	0%
Purchase - non staple	4%	-1%	2%	100%			100%	2%	2%
Purchase - staple	26%	_	70%	100%			100%	28%	28%
food deficit									33%
total	93%	-5%	132%					67%	
Income : Very Poor F	lHs								
,	Baseline	Expand	Max.	Problem	Comm.	Staple	Con.prob	Max.curr	Curr.
Cash	Access	-ability	Access	%norm	Price	Price	%norm	Access	Access
Cattle sales	0	0	0	50%	200%	300%	100%	0	0
Goat sales	0	0	Ö	100%	175%	300%	175%	0	Ö
Sheep sales	0	0	0	100%	145%	300%	145%	Ō	0
Sorghum sales	0	120	120	50%	138%	300%	69%	83	83
Beans sales	0	0	0	50%	138%	300%	69%	0	0
Ag. Labour	300	0	300	70%	200%	300%	140%	420	420
Construction labour	150	23	173	100%	106%	300%	106%	183	183
Domestic labour	240	36	276	100%	106%	300%	106%	293	293
Employment and pension	0	0	0	100%	106%	300%	106%	0	0
Remittances	300	0	300	100%	106%	300%	106%	318	318
Self-employment	480	0	480	80%	200%	300%	160%	768	768
Petty trade	0	0	0	100%	106%	300%	106%	0	0
total:	1,470	179	1,649	10070	.0070	000,0	.0070	2,064	2,064
Expenditure : Very P	oor HHs								
, , , , , , , , , , , , , , , , , , ,	Baseline			Problem	Comm.		Con.prob	Max.curr	Curr.
Cash	Expend			%norm	Price		%norm	Expend	Expend
min.non-staple	178			100%	172%		172%	306	306
essential	363			100%	126%		126%	0	0
staple	540			10070	120/0		120/0	1,758	1,758
other	389							1,730	1,730
total:	1,470							2,064	2,064
exp. deficit	1,470							457	457
exp. delicit				l				437	437

# Sengu River Valley LZ

BASELINE ACCESS			PROBLEM SPECIFICATION				<u>RESPONSE</u>		
Sources of Food:	Very Poor								
	Baseline	Expand	Max.	Problem	Food Intake	e	Con.prob	Max.curr	Curr
	Access	-ability	Access	%norm	kcals/day		%norm	Access	Acces
Cows' milk - wet	0%	0%	0%	100%	baseline:		100%	0%	0%
Goats' milk - wet	0%	0%	0%	100%	2100		100%	0%	0%
Own meat	0%	0%	0%	100%	for analysis	:	100%	0%	0%
Maize	5%	0%	5%	80%	2100		80%	4%	4%
Sorghum	6%	-6%	0%	80%			80%	0%	0%
Beans	1%	0%	1%	80%			80%	1%	19
Vegetables	1%	0%	1%	100%			100%	1%	19
Labour	17%	0%	17%	80%			80%	14%	14%
Wild food	2%	0%	2%	100%			100%	2%	2%
School feeding	5%	0%	5%	100%			100%	5%	5%
Food aid	33%	0%	33%	0%			0%	0%	0%
Purchase - non staple	4%	-2%	2%	100%			100%	2%	2%
Purchase - staple	22%		86%	100%			100%	40%	40%
food deficit									33%
total	95%	-8%	151%					67%	
Income : Very Poor	r HHs								
-	Baseline	Expand	Max.	Problem	Comm.	Staple	Con.prob	Max.curr	Curi
Cash	Access	-ability	Access	%norm	Price	Price	%norm	Access	Acces
Wool/mohair	0	0	0	100%	118%	300%	118%	0	(
Cattle sales	0	0	0	100%	166%	300%	166%	0	(
Piglet sales	0	0	0	100%	266%	300%	266%	0	(
Goat sales	0	0	0	100%	133%	300%	133%	0	(
Pig sales	0	0	0	100%	100%	300%	100%	0	(
Sheep sales	0	0	0	100%	132%	300%	132%	0	(
Chicken sales	0	0	0	100%	160%	300%	160%	0	(
Sorghum sales	0	244	244	80%	138%	300%	110%	269	269
Beans sales	0	0	0	80%	138%	300%	110%	0	(
Ag. Labour	450	0	450	80%	200%	300%	160%	720	720
Construction labour	400	60	460	100%	135%	300%	135%	621	62
Domestic labour	320	0	320	100%	106%	300%	106%	339	339
Employment/Pension	0	0	0	100%	106%	300%	106%	0	(
Remittances	200	0	200	100%	118%	300%	118%	236	230
Self-employment	320	0	320	100%	200%	300%	200%	640	640
Petty trade	0	0	0	100%	110%	300%	110%	0	(
total:	1,690	304	1,994					2,826	2,826
Expenditure : Very	Poor HHs	 S							
	Baseline			Problem	Comm.		Con.prob	Max.curr	Curi
Cash	Expend			%norm	Price		%norm	Expend	Expen
min.non-staple	178			100%	174%		174%	310	31
essential	342			100%	126%		126%	0	
staple	462							2,516	2,51
other	708							,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	_,0 .
total:	1,690							2,826	2,82
exp. deficit				1				431	43

Sengu River Vallev LZ BASELINE ACCESS				PROBLEM SPECIFICATION				DESDONSE	
Sources of Food :	FROBLE	IVI SPECIFIC		RESPONSE					
Sources of Food	Darkton	E		0 1-	N4	0			
	Baseline	Expand	Max.	Problem	Food Intak	e	Con.prob	Max.curr	Curr.
0 1 "	Access	-ability	Access	%norm	kcals/day		%norm	Access	Access
Cows' milk - wet	0%	0%	0%	100%	baseline:	1	100%	0%	0%
Goats' milk - wet	0%	0%	0%	100%	2100		100%	0%	0%
Own meat	0%	0%	0%	100%	for analysis	S:	100%	0%	0%
Maize	12%	0%	12%	80%	2100		80%	9%	9%
Sorghum	7%	-7%	0%	80%			80%	0%	0%
Beans	2%	0%	2%	80%			80%	1%	1%
Vegetables	0%	0%	0%	100%			100%	0%	0%
Labour	14%	0%	14%	80%			80%	11%	11%
Wild food	1%	0%	1%	100%			100%	1%	1%
School feeding	5%	0%	5%	100%			100%	5%	5%
Food aid	27%	0%	27%	0%			0%	0%	0%
Purchase - non	3%	-2%	2%	100%			100%	2%	2%
Purchase - staple	28%		125%	100%			100%	60%	60%
food deficit									9%
total	99%	-8%	189%					91%	
Income : Poor HH	Income : Poor HHs								
	Baseline	Expand	Max.	Problem	Comm.	Staple	Con.prob	Max.curr	Curr.
Cash	Access	-ability	Access	%norm	Price	Price	%norm	Access	Access
Wool/mohair	0	0	0	100%	118%	300%	118%	0	0
Cattle sales	0	0	0	100%	166%	300%	166%	0	0
Piglet sales	250	0	250	100%	266%	300%	266%	665	665
Goat sales	0	175	175	100%	133%	300%	133%	233	233
Pig sales	0	0	0	100%	100%	300%	100%	0	233
Sheep sales	500	250	750	100%	132%	300%	132%	990	990
Chicken sales	150	0	150	100%	160%	300%	160%	240	240
Sorghum sales	0	352	352	80%	138%	300%	110%	389	389
Beans sales	0	0	0	80%	138%	300%	110%	0	0
Ag. Labour	360	0	360	80%	200%	300%	160%	576	576
				100%		300%			
Construction labour	0	0	0		135%		135%	0	0
Domestic labour	0	0	0	100%	106%	300%	106%	0	0
Employment/Pension	0	0	200	100%	106%	300%	106%	0	0
Remittances	200	0	200	100%	118%	300%	118%	236	236
Self-employment	400	0	400	100%	200%	300%	200%	800	800
Petty trade	750	0	750	100%	110%	300%	110%	825	825
total:	2,610	777	3,387					4,953	4,953
Expenditure : Poo									
	Baseline			Problem	Comm.		Con.prob	Max.curr	Curr.
Cash	Expend	_		%norm	Price		%norm	Expend	Expend
min.non-staple	213			100%	174%		174%	371	371
essential	368			100%	126%		126%	0	0
staple	700	•						4,583	4,583
other	1,329							,	0
total:	2,610							4,953	4,953
exp. deficit	, = -							464	464
onp. donoit				I				1 70-7	70-7

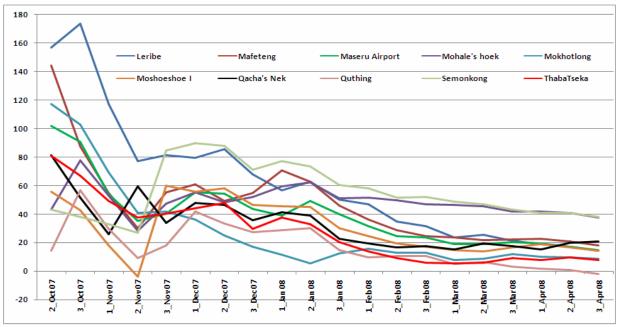
#### Appendix D

# <u>Agrometeorological Situation for the 2007/08 Agricultural Season (By Lesotho</u> Meteorological Services. June 3, 2008))

#### **Rainfall Situation**

Rainfall situation was to a large degree satisfactory during the 2007/08 agricultural season. Onset of rains was during the last week of September 2007. The onset was marked by heavy downpours of rain countrywide. However, it should be noted that the onset was late for planting in the highlands of the country as normally planting in these areas starts as early as August and September. In the other agro ecological zones the onset was timely. Heavy rains in the beginning of the season ended one of the worst droughts Lesotho has experienced in more than three decades. The drought persisted for more than nine consecutive months.

Rainfall situation was normal to above normal during both October – December 2007 (OND) and January – March 2008 (JFM) periods. Some parts of the country recorded consistent rainfall for most parts of the season. Land was waterlogged at some places during the onset and sowing was affected, and heavy rains in December hampered with weeding in some parts of the country. Cumulative Rainfall remained above normal during OND and was largely normal during JFM. Last dekad of January and February were dominated by dry spells which affected crops at some parts of the country. Crops were at their critical stages and some of them could not recover fully from damage caused by that dry weather. Hailstorms were experienced in most parts of the country and some of them were quite destructive especially in the southern parts of the country.



Rainfall Percentage Departure from Normal for the 2007/08 Rainfall Season. Time scale is in Dekads.

### **Frost and Temperatures**

Frost came during the beginning of last dekad of April. It was delayed in the highlands, on time in foothills and early in the lowlands and the Senqu River valley. Some crops had not fully matured when frost came and they were thus destroyed before giving potential yields. Mean temperatures dropped to below normal most of the time since the second dekad of March until the end of the season. Otherwise temperatures were good through out the season.