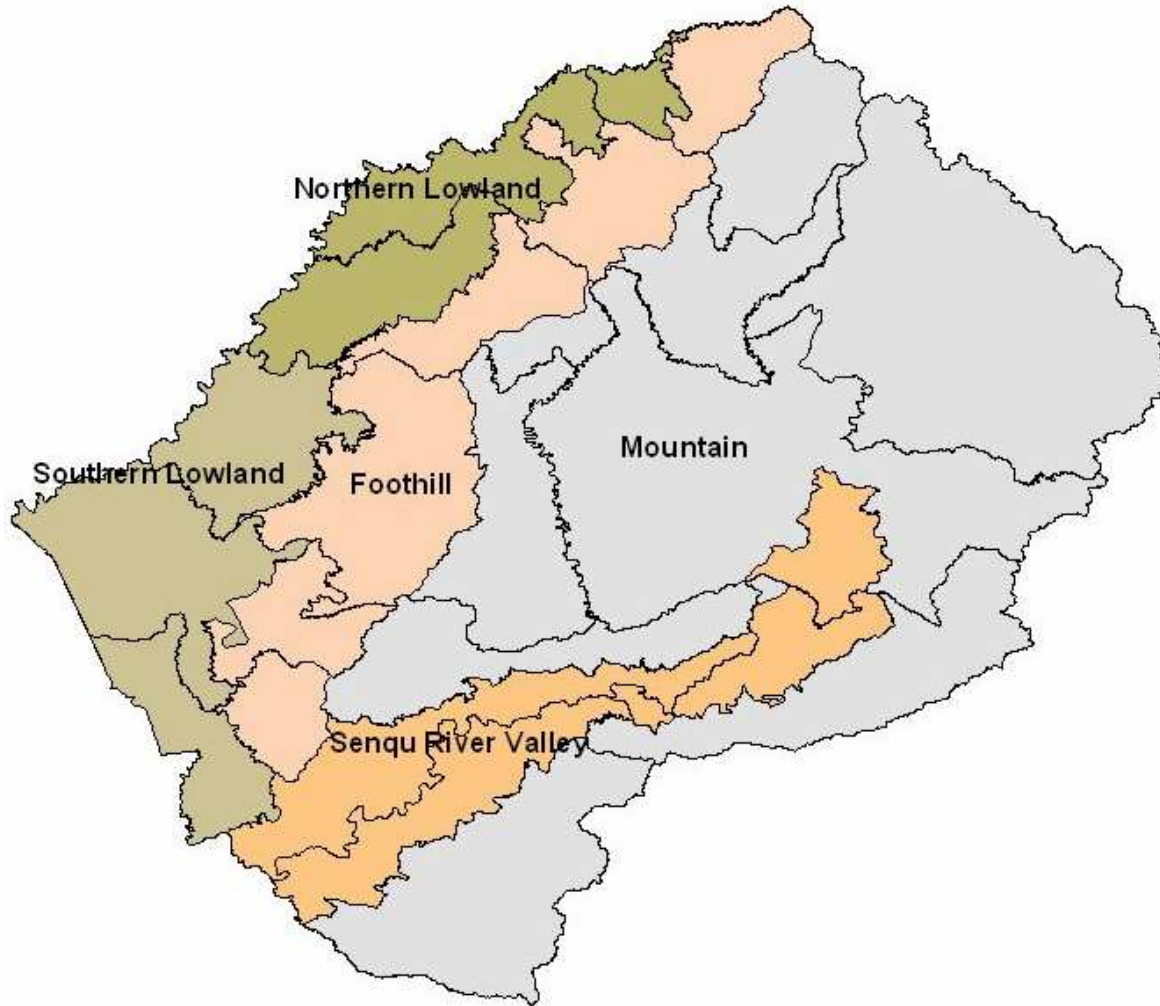




LESOTHO
Vulnerability
Assessment Committee

Lesotho Food Security and Vulnerability Monitoring Report May – June 2006



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'Mapalesa Mothokho
Chair, LVAC
July 2006

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Executive Summary

The Lesotho Vulnerability Assessment Committee (LVAC) is a multi agency body that works to provide timely and reliable information on household vulnerability to food insecurity.

This report comes at a time when LVAC has just completed a baseline redevelopment exercise carried out in February 2006. The exercise involved conducting a comprehensive livelihood baseline assessment covering all the six livelihood zones of Lesotho. Key features of the new baselines include detailed household income and expenditure and a wealth categorisation that reflects four wealth groups of the 'very poor', 'poor', 'middle' and 'better – off'. The detailed baseline profiles have largely addressed the shortcomings in the previous baselines and allows for regular monitoring and scenario updating.

The other significant development since the last LVAC report is that the livelihood zone maps have been updated by the Bureau of Statistics to allow for overlaying livelihood zone maps onto administrative maps to enable easy interpretation of LVAC reports. As a result of this exercise the population figures for various zones have changed drastically. This is especially so for the Senqu River Valley whose total habitable area has reduced drastically and its estimated population is now below 50,000 people.

A big number of Basotho continue to be highly vulnerable to food insecurity and much of this vulnerability is chronic and as result of high levels of poverty. The new livelihood profiles indicate deep levels of poverty as the 'very poor' and 'poor' households struggle to meet their food requirements let alone other essential expenditure. This year Lesotho experienced heavy rains that resulted in a mixed situation of good crop in some cases and too much rain that caused water logging and destruction of crops on the other. In some zones especially the Mountains, rains started late and this resulted in general crop failure. In May this year LVAC carried out a field exercise which looked at the impact of problems such as low crop production, increase in the price of staple and other economic conditions on livelihoods of poor households. This is done by modeling the potential impact of the problems on the baseline situation of how households normally survive and make their ends meet.

The LVAC livelihood profiles describe how households access their food and have details of sources of food, income and expenditure patterns that households incur to survive. The livelihood profiles provide the 'baseline' which combined with monitoring information on key parameters such as price of staple, crop production and sources of income enables us to measure changes in household food access as a result of changes in key areas that affect their livelihoods.

The May assessment by LVAC was conducted at livelihood zone level and focused on a limited number of key parameters that affect food access in the different zones. The findings and secondary data were used to project likely scenarios based on the household coping potential that is incorporated in the baseline profiles.

In March 2006, the LVAC in collaboration with the Food and Nutrition Coordinating Office (FNCO), Ministry of Health and Social Welfare and the World Food Programme (WFP) carried out a nutrition assessment in each of the livelihood zones. The nutrition assessment was restricted to weight for height and height for age measures for children below five years. The aim was to understand the

nutrition status in the zones and how this relates to the general food security situation. The overall conclusion of the nutrition assessment shows high levels of stunting which is an indicator of chronic vulnerability and in some zones high levels of wasting which indicated acute malnutrition.

The nutrition trends identified by the assessment generally correspond to the findings of the national Demographic and Health Survey (DHS) conducted in 2004 with the exception of one zone and a recommendation has been made to review the results of this zone.

With the newly developed livelihood profiles, LVAC is now able to quantify the effect of the current year problem on households in terms of a food deficit and an expenditure deficit. The livelihood profiles have a minimum 'non food basket' that includes those items other than the staple food which a household must obtain for the most basic living, and a minimum 'essential expenditure basket' which includes expenditure that is very important for the household and this includes expenditure on social services such as health and education plus expenditure on inputs such as fertilizer and seed.

In the LVAC current analysis, the results have been presented in terms of a food deficit and an expenditure deficit. In addition, both types of deficit have been expressed in food and cash terms for purposes of comparison and to aid decision making on intervention options.

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.

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 sale of 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 not covered then the household experiences both an expenditure and food deficit.

1.1 Summary Outcomes

As mentioned already both the food and expenditure deficits have been expressed in both *maize and Cash equivalents* to aid decision-making on intervention options. 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 one food commodity maize, which is the staple food in Lesotho. The expenditure deficit has also been converted into maize equivalent using the prevailing price of maize in each livelihood zone.

Foothills - the 'very poor' households with a population of 26,717 people is likely to face a food deficit of 7% per person and an expenditure deficit of M475 per household. The maize required to fill the food deficit is 420MT and cash equivalent is M1,049,242. The total expenditure deficit for the 'very poor' households is M2,113,282 and its maize equivalent is 845MT.

Expressed in food terms, the expenditure and food deficit will be a maize equivalent of 1265MT. In cash terms, the expenditure and food deficit can be covered by M3,162,524.

Mountains - the 'very poor' households with a population of 49,126 people are likely to face a food deficit of 17% per person and an expenditure deficit of M398 per household. The maize required to fill the food deficit is 1738MT and cash equivalent is M4,172,397. The total expenditure deficit for the 'very poor' households is M2,791,162 and its maize equivalent is 1163MT.

Expressed in food terms, the expenditure and food deficit will be a maize equivalent of 2901MT. In cash terms, the expenditure and food deficit can be covered by M6,963,559.

Northern Lowlands – no residual deficits after coping strategies.

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 17,386 people are likely to face a food deficit of 48% per person and an expenditure deficit of M396 per household. The maize required to fill the food deficit is 1767MT and cash equivalent is M4,241,030. The total expenditure deficit for the 'very poor' households is M984,455 and its maize equivalent is 410MT. The 'poor' households with a population of 40,907 people are likely to face a food deficit of 4% per person and an expenditure deficit of M396 per household. The maize required to fill the food deficit is 358MT and cash equivalent is M858,067. The total expenditure deficit for the 'poor' is M2,316,364 and its maize equivalent is 965MT.

Expressed in food terms, the combined expenditure and food deficit for the 'very poor' and the 'poor' will be a maize equivalent of 3500MT. In cash terms, the expenditure and food deficit can be covered by M8,399,916.

Southern Lowlands – the 'very poor' households with a population of 97,339 people are likely to face a food deficit of 8% per person and an expenditure deficit of M381 per household. The maize required to fill the food deficit is 1663MT and cash equivalent is M 4,157,474. The total expenditure deficit for the 'very poor' households is M 7,420,155 and its maize equivalent is 2968MT.

Expressed in food terms, the combined expenditure and food deficit for the 'very poor' will be a maize equivalent of 4631MT. In cash terms, the expenditure and food deficit can be covered by M11,577,629.

Senqu River Valley - the 'very poor' households with a population of 14,265 people are likely to face a food deficit of 7% per person and an expenditure deficit of M359 per household. The maize required to fill the food deficit is 213MT and cash equivalent is M532,470. The total expenditure deficit for the 'very poor' households is M1,024,521 and its maize equivalent is 410MT.

Expressed in food terms, the combined expenditure and food deficit for the 'very poor' will be a maize equivalent of 623MT. In cash terms, the expenditure and food deficit can be covered by M1,556,991.

1.2 National Summary table

	Food deficit	Expenditure deficit	Total
No. beneficiaries	245,739	245,739	245,739
Food required to fill deficit (MT)	6159	6762	12,920MT
OR Cash required to fill deficit (Maloti)	15,010,679	16,649,938	M31,660,617

Note that the price of maize used in the above calculation varies from zone to zone depending on the percentage increase over baseline prices at the time of the assessment.

Note on Population Adjustments and current year analysis.

In July 2005 BOS supported LVAC to update the Livelihood zone maps and as a result the borders were redefined. This exercise resulted in significant population shifts in some zones and the most affected zone is the Senqu river valley whose population now stands at 122,680 compared to 346,000 in previous years. Much of the former Senqu river valley population is now in the Mountains and Southern lowlands. In fact the Southern lowlands population has more that doubled and this indicates serious underestimation of the population of the zones in the previous mapping exercise.

In addition current year analysis has been done using new baselines developed in February 2006. The new baselines make any comparisons between the current year and last year very difficult because one would be comparing analysis based on different baselines.

2 National Overview

2.1 Introduction

The Lesotho Vulnerability Assessment Committee (LVAC) is a multi agency body that works to provide timely and reliable information on household vulnerability to food insecurity. LVAC is made up of Government, UN agencies and NGOs that are involved in food security and livelihoods work in the country.

A big number of Basotho continue to be highly vulnerable to food insecurity and much of this vulnerability is chronic and as result of high levels of poverty. The new livelihood profiles indicate deep levels of poverty as the 'very poor' and 'poor' households struggle to meet their food requirements let alone other essential expenditure.

LVAC adopted a livelihoods based approach to vulnerability assessments with the aim of getting a deeper understanding of underlying causes of vulnerability. LVAC provides this information and analysis to decision makers in government and agencies to guide programming in humanitarian work, development, poverty reduction and safety nets programming.

2.2 The approach

In January – February 2006, the LVAC carried out livelihood baseline profiling in all the six zones. The Household Economy Approach 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.

terms of crop production estimates, the team provided two estimates; one estimate is based on BOS data of area planted in 2005/06; the other is based on the Crop and Food Supply Assessment Mission (CFSAM) 2004/05 figures and the teams' own assessment as shown in the below tables.

Lesotho: Total cereal production estimates ('000 tonnes) in 2005/06 compared to five-year average

District	2000/01	2001/02	2002/03	2003/04	20004/05	five-year average	2005/2006	Percent of last year production
Butha-Buthe	4.8	3.7	2.9	6.2	5.1	4.54	10.31	202%
Leribe	29.2	31.2	34.3	23.7	23.7	28.42	28.64	121%
Berea	25.5	23.2	13.3	10.4	10.7	16.62	19.49	182%
Maseru	32.2	23.3	15.1	17.4	23.7	22.34	20.47	86%
Mafeteng	31.9	19.1	16.2	13.1	12.5	18.56	17.06	137%
Mohale's Hoek	24.6	6	14.2	9.6	9	12.68	5.69	63%
Quthing	9.6	2.8	6.7	5.5	4.5	5.82	6.03	134%
Qacha's Nek	2.6	4.5	0.6	1.3	4.1	2.62	2.01	49%
Mokhotlong	6.8	10.7	6.2	6.5	9.1	7.86	4.59	50%
Thaba-Tseka	9.4	10.1	9.4	10.4	16.5	11.16	11.88	72%
LESOTHO	176.6	134.6	118.9	102.9	118.9	130.38	126.17	106%

Source: Bureau of Statistics, CFSAM and Assessment Estimates

Lesotho: Total cereal production estimates ('000 tonnes) in 05/06 compared to 5-yr Av.

District	2000/01	2001/02	2002/03	2003/04	20004/05	five-year average	2005/2006	Percent of last year production
Butha-Buthe	4.8	3.7	2.9	6.2	3.344	4.1888	7.90	236%
Leribe	29.2	31.2	34.3	23.7	8.417	25.3634	26.49	315%
Berea	25.5	23.2	13.3	10.4	20.375	18.555	18.87	93%
Maseru	32.2	23.3	15.1	17.4	12.953	20.1906	21.39	165%
Mafeteng	31.9	19.1	16.2	13.1	8.12	17.684	16.05	198%
Mohale's Hoek	24.6	6	14.2	9.6	15.594	13.9988	9.52	61%
Quthing	9.6	2.8	6.7	5.5	6.755	6.271	5.23	77%
Qacha's Nek	2.6	4.5	0.6	1.3	2.085	2.217	1.00	48%
Mokhotlong	6.8	10.7	6.2	6.5	4.339	6.9078	4.42	102%
Thaba-Tseka	9.4	10.1	9.4	10.4	13.928	10.6456	7.99	57%
LESOTHO	176.6	134.6	118.9	102.9	95.91	125.782	118.85	124%

Source: Bureau of Statistics and Assessment Estimates

From the above estimates, production in the 2005/06 season was estimated to be higher than production in the 2004/05 agricultural season (at 6% higher than 2004/05 production when CFSAM figures are used and at 24% higher when BOS figures are used). The BOS has been conducting final crop production estimates and these should provide a more realistic picture of the production season. This usually helps in updating the Food Balance Sheet and monitoring the food supply situation in the Country.

2.4 Current year hazards and shocks

2.4.1 Crop Production

Although at the national level, crop production for the 2005/06 agricultural season is expected to be better than last year's production, at the household level the situation is quite different. Individual household crop production will depend on a number of factors such as timing of planting and use of inputs. The LVAC has compared current production to the baseline year (2004/05) and the judgement is that with the exception of the Northern lowlands where production is judged to be same as in the baseline year, production in the remaining five livelihood zones will be at 60 – 80% of baseline production.

2.4.2 National Cereal Availability

The total cereal requirement for the 2006/2007 marketing year stands at 414,820 tonnes. Meanwhile, the total domestic cereal availability is 172,953 tonnes, meaning that about 241,867 tonnes of cereals have to be imported to cover the domestic shortfall. Total planned cereal imports by the commercial major grain handlers and food aid during this marketing year stand at 243,528 tonnes. The planned imports of cereals should therefore be able to cover any deficits.

It is important to note however, that the National Food Balance sheet is looking at national level availability, which tells us the food supply situation in the Country. It does not tell us about household access which is about who is able to eat and who will not eat. The LVAC measures household access to food because although food may be available at the national level, some populations may go hungry and these are the households LVAC tries to identify so that appropriate support may be given.

There are clear signs of a growing informal cross border trade in maize and maize-meal and this undermines the credibility of National Food Balance statements. Until we are able to understand how much food comes into the country through informal trade, Food balance statements will remain fairly hypothetical. It is very important that Government establishes a system to monitor informal trade to measure its contribution to the national food supply situation.

2.4.3 Livestock Conditions

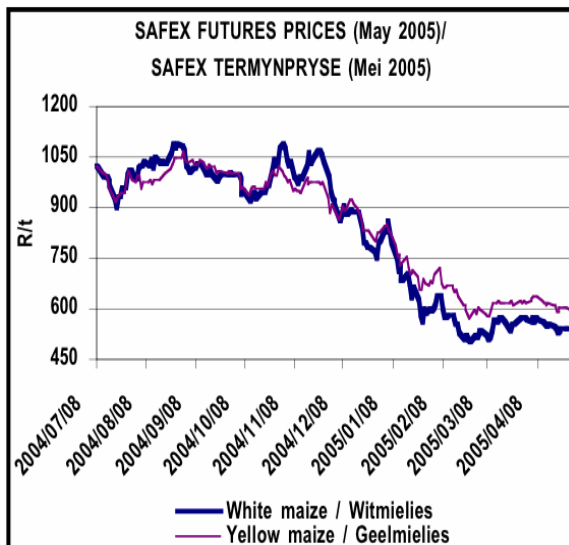
The livestock sector continues to provide a significant source of rural income, with cattle, sheep, goats and pigs being the most important livestock. Apart from sale of livestock, livestock products such as wool and mohair are major sources of income.

Good rainfall has resulted in very good grazing conditions and no major livestock disease outbreak has been reported. For this reason livestock and grazing conditions are judged to be normal to above normal in 2005/06.

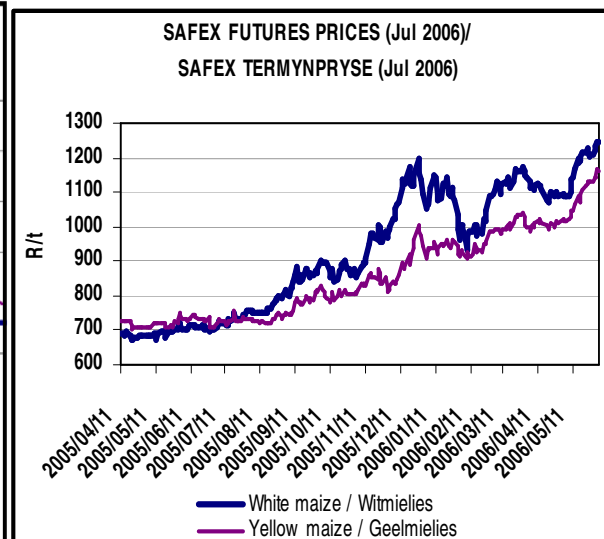
2.4.4 Food Price Changes

The maize price monitoring by the South African Grain Information Service (SAGIS) highlights a significant rise in the price of maize since September 2005. Domestic prices for maize in South Africa have risen from about R700/MT in September 2005 to just above R1200/MT in May 2005. This increase of just above 70% is in complete contrast to the situation in 2004/05 when the price of maize fell from R1000/MT in December 2004 to just under R500/MT in May 2005.

The main reason for the high price raise is that South African farmers decided to cut back on maize production by reducing area planted by about 45% compared to the 2004/05 season. This was done in an attempt to force the maize price up to be able to make it worth while business. It is expected that the high price of maize will at best be maintained but could rise even higher and this will have major implications for Lesotho.



Source: SAGIS Bulletin May 2005



Source: SAGIS Bulletin June 2006

2.5 Problem specification

2.5.1 Crop Production changes.

The Disaster Management Authority, with support from FAO, WFP and other Government Ministries carried out a rapid crop assessment in June. This was aimed to give an indication of the how crop production is likely to be in the absence of the normal crop forecasting exercise and the Crop and Food Supply Assessment Mission (CFSAM). The crop assessment report indicates that area planted for the main crops i.e. maize, sorghum and wheat was close to area planted in the 2004/05 season. In terms of crop production estimates, the analysis shows that crop production for the 2005/06 season will be higher than for 2004/05 by about 6% - 24%. The lower estimate is based on analysis using CFSAM data while the higher is based on analysis using official Bureau of Statistics (BOS) data of previous years' yield and production.

Information from community level interviews conducted by LVAC was less optimistic than crop assessment estimates. In addition, the LVAC assessment Teams observed a fairly poor crop in comparison to the baseline year. For this reason, LVAC has decided on a compromise problem specification - triangulating findings from secondary sources and an interpretation of community level perceptions.

2.5.2 Own Food Crops

Own food crops make an important contribution to total food access for all wealth groups. The 'middle' and 'better off' groups are much more successful in self-provisioning through own food crops. The percentage contribution of own food

crops to total food access for the 'very poor' and 'poor' households is in the range of 10-40%. For the 'middle' and 'better - off' households the contribution of own food crops to total food access is in the range of 35-70%.

Maize and sorghum production in the 2005/06 season as a percentage of baseline production (2004/05) is estimated to be 60-70% for the Foothills, 60-70% for the Mountains, 100% for the Northern lowlands, 65-70% for the Peri urban, 65-70% for the Southern Lowlands and 65-80% for the Senqu River valley. Bean production is likely to be much lower and is estimated at 50% for all Livelihood zones except for the northern lowlands which is estimated at 100%.

The 'very poor' and 'poor' access much of their food through labour (payment in kind). In the baselines 'very poor' households in all zones obtain 15-35% of total food access from payment in kind (labour) and the main activity is weeding. This season access to food through labour will be reduced to 80% of baseline access in the Mountains, Senqu river valley and the Foothills. In the Peri urban zone labour will contribute 60% of baseline access while in the Northern lowlands normal access will be maintained.

2.5.3 Cash Crops

The main crops that are sold in most livelihood zones are maize, sorghum, beans and vegetables and the significance of each cash crop varies from zone to zone. The assessed production for cash crops as a percentage of baseline production is 50-70% for the Foothills, 50-80% for the Mountains, 80-100% for the Northern Lowlands, 50-70% for the Peri urban, 50-70% for the Southern lowlands and 50-80% for the Senqu river valley. Note that the ranges are different from what is given under 'own crop' because cash crops include beans and vegetable production as well.

In addition, cash income from agricultural labour will be reduced this season in comparison to the baseline year. This is mainly attributed to the heavy rains that caused water logging and thus affected weeding activities, which are the main source of cash income. It is estimated that agricultural cash income as a percentage of baseline access will be 80% for the Foothills, Mountains and Senqu river valley, 60% for the Peri urban, 70% for the Southern lowlands and normal in the Northern lowlands.

2.5.4 Livestock and grazing conditions

Due to the good spread of rains during the season coupled with efforts to deal with livestock diseases, the overall livestock conditions have been judged to be normal. The good rains ensured adequate pasture and water for livestock so milk and meat production was normal. No major disease outbreaks were reported and efforts to control sheep scab were particularly appreciated by farmers. Cattle theft remains a big problem in all livelihood zones and results in loss of cash income. The future is more optimistic though, since funding from the millennium Challenge Fund is now available for a massive 'Micro - chipping' of main livestock in the whole Country. This should serve as a major deterrent to livestock theft because identification will be much easier. This massive project will target all cattle, sheep, goats, horses and donkeys in Lesotho and could be completed in the next two years or less.

2.6 Price changes

2.6.1 Changes in price of maize

There are significant changes in the price of maize and this is consistent with maize price increases in South Africa from where most of the maize consumed in Lesotho comes. The current maize price in comparison to baseline price has increased by 20% in the Mountains and Peri Urban zones and by 25% the Foothills, Southern lowlands, Northern lowlands and Senqu river valley.

This percentage increase is still low in comparison to maize price increases in South Africa. This could probably be as a result of old maize stocks in Lesotho whose price is not affected by current prices in South Africa. The implication, however, is that unless the price of maize in South Africa falls, any maize imports will come into Lesotho at the current high prices and this will have a big impact on household food access in the coming months. The food price situation needs to be closely monitored and any significant changes will require LVAC to update the food security scenarios to reflect price changes.

Note that the increase in the price of maize has also been reflected in the income sources for those zones where sale of maize is a source of cash income. This means that the cash income per unit sold will increase although total cash income may not necessarily increase because production is lower in all zones (except for Northern lowlands) than it was in the baseline year.

2.6.2 Changes in price of livestock

In comparison to the baseline situation, the price of cattle has increased by 13% in the Foothills (FTH) and Southern lowlands (SLL), by 7% in Senqu river valley (SRV), 12% in Mountains (MNT), 10% in the Peri urban (PUR) and 15% in Northern lowlands (NLL). The price of goats has increased by 15% in SLL and MNT, 11% in FTH and 10% in SRV. The price of sheep has increased by 16% in the FTH and SLL, 10% in NLL, 15% in PUR, 25% in SRV and 13% in MNT. The price of pigs/piglets has increased by 25% in NLL, 10% in PUR and 19% in SRV.

Note that for areas where no price changes have been quoted, the particular livestock is not normally kept and/or sold.

2.6.3 Changes in labour rates

In all zones no significant change in labour rates was observed and they have therefore been maintained at baseline levels. The team assessed only casual labour rates but it is also assumed that wages in other informal and formal employment have not changed compared to baseline.

With the exception of agricultural labour income (which was affected by water logging), all other employment related income has been assumed to remain the same as the baseline situation. These include domestic and construction labour, remittances, formal and self employment. Adjustments have been made however, to take on board the prevailing inflation rate of 5% by increasing the corresponding cash income by 5%

3. Results by Livelihood zone

3.1 Foothills

3.1.1 Main Conclusions and Implications

The current year experienced both dry spells and heavy rains at different times of the season and this disrupted planting patterns. The normal start of planting time (September) was affected by long dry spells and as a result most planting started in November. In addition to late planting, heavy rains caused massive water logging which affected weeding.

The heavy rains and subsequent water logging affected weeding activities which is a major source of food and cash for the 'very poor' and the 'poor'. The sorghum crop appeared to be doing much better than the maize crop but the beans crop was really badly affected and not much production was expected. There were also cases of new pests which destroyed the crops especially beans.

In this zone, the price of maize has been increasing since January and by May it had increased by 25% over the baseline price. In addition, access to food and cash from weeding and other agricultural activities was reduced.

As a consequence of the above, in addition to the increase in the cost of the minimum 'non stable' and 'essential' baskets due to annual inflation at 5%, the 'very poor' will miss some of their food entitlements. Based on this scenario, the 'very poor' households with a population of 26,717 people are likely to face a food deficit of 7% per person and an expenditure deficit of M475 per household. The maize required to fill the food deficit is 420MT and cash equivalent is M1,049,242. The total expenditure deficit for the 'very poor' households is M2,113,282 and its maize equivalent is 845MT.

Expressed in food terms, the expenditure and food deficit will be a maize equivalent of 1265MT. In cash terms, the expenditure and food deficit can be covered by M3,162,524.

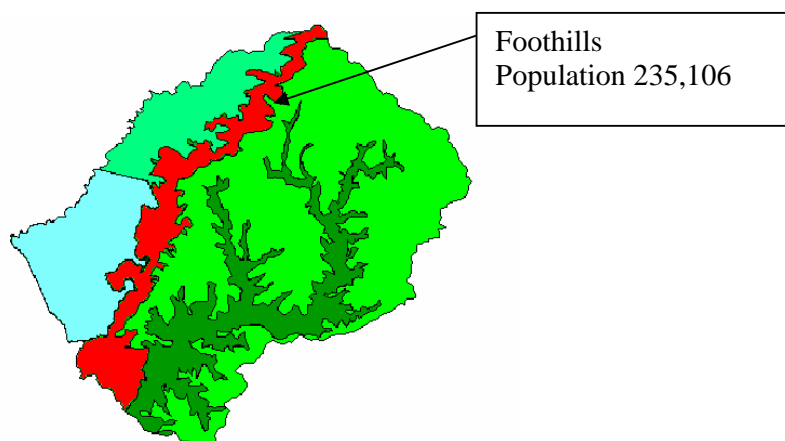
Affected population	Food deficit (a)	Expenditure deficit (b)	Food equivalent (a & b combined)	Cash equivalent (a & b combined)
26,717	420MT	M2,113,282	1265MT	M3,162,524

3.1.2 Zone Description

The Foot Hills zone supports a population of 235,106 people and occupies a long stripe of rugged and broken country that separates the mountains from the lowlands. The hilly parts of the zones are mainly used for grazing while the low-lying areas, which are characterised by streams and rivers are used for crop production.

Livestock holding in the area are high and the 'middle' and 'better - off' wealth groups have large flocks of sheep and goats exploiting the extensive rangelands.

The most important food crop grown in the area is maize. Other crops include sorghum, wheat, potatoes and beans. The sorghum is used for both consumption and beer brewing. There are no special cash crops grown in the area. The same food crops are sold when there is need. This is mostly done by the 'better-off' households who produce more than required for household consumption.



3.1.3 Current Hazards

The dry spell at the beginning of the planting season caused delays in planting and this affected the crop yields especially for the maize crop. The subsequent heavy rains caused water logging and this affected the crop conditions at a critical weeding stage.

The massive water logging reduced weeding opportunities for poorer household who access both cash and food from this activity. The 'very poor' accessed 12% of their total food consumption in the baseline year from weeding. This year they will access only 9% of total consumption from weeding. In baseline year the very poor access about 40% of total cash income from agricultural labour. This year they will obtain about 32% from agricultural labour activities.

The price of maize has increased by 25% over the baseline price and this scenario is not likely to change given the expected low maize production South Africa. The areas of the zone that are in the southern parts of Lesotho in Mafeteng and Maseru districts are more affected that the northern parts.

3.1.4 Problem specification for the Foothills

Key parameters in this scenario	Percentage of baseline
Maize production	60%
Sorghum production	70%
Beans	50%
Price of maize	125%
Food from agric labour	80%
Cash from agric labour	80%
Cash from crop sales	50 - 70%
Inflation	105%

3.1.5 Outcome

The combined effect of reduced crop production, reduced food and cash income from agricultural labour, the increase in the price of staple and general impact of inflation on household expenditure means that very poor households will miss some of their food entitlements.

The analysis has taken into account all potential coping strategies the households may employ but for the 'very poor' expanding on such options is very difficult. For example, the main source of cash income is casual labour but opportunities for increasing this in times of crises are not much and in the event of increased supply of casual labour, the labour rates are likely to drop and as a result total cash incomes may not increase.

The 'very poor' households will not be able to meet all their minimum energy requirements even if they switch the cash for essential expenditure such as education, health and grinding. It is also very important not to let the 'very poor' switch this essential expenditure because it would have negative impact on livelihoods.

The above situation has resulted in a food and cash deficit for the 'very poor' households with a population of 26,717 and requires support amounting to either 1265MT or M3,162,524.

3.2 The Mountains

3.2.1 Main Conclusions and Implications

Similar to the situation in the Foothills, the Mountains livelihood zone experienced insufficient rainfall at the time of normal planting in September. The area went through a dry spell between October and December, and eventually received heavy rains in January.

Most crops experienced poor germination due to prolonged drought and some people reported that they had to replant. The zone experienced a significant crop loss due to the dry spell though some recovered with the onset of rains in January.

The January rains caused problems as well such as water logging in some places thus delaying weeding and further reducing the crop yields. In addition, the poorer households lost the opportunities for cash and food that comes from weeding and other agricultural labour

In this zone, the price of maize has been increasing since January and by May it had increased by 20% over the baseline price. In addition, access to food and cash from weeding and other agricultural activities was reduced.

As a consequence of the above, in addition to the increase in the cost of the minimum 'non stable' and 'essential' baskets due to annual inflation at 5%, the 'very poor' will miss some of their food entitlements. Based on this scenario, the 'very poor' households with a population of 49,126 people are likely to face a food deficit of 17% per person and an expenditure deficit of M398 per household. The maize required to fill the food deficit is 1738MT and cash equivalent is M4,172,397. The total expenditure deficit for the 'very poor' households is M2,791,162 and its maize equivalent is 1163MT.

Expressed in food terms, the expenditure and food deficit will be a maize equivalent of 2901MT. In cash terms, the expenditure and food deficit can be covered by M6,963,559

Affected population	Food deficit (a)	Expenditure deficit (b)	Food equivalent (a & b combined)	Cash equivalent (a & b combined)
49,126	1738MT	M2,791,162	2901MT	M6,963,559

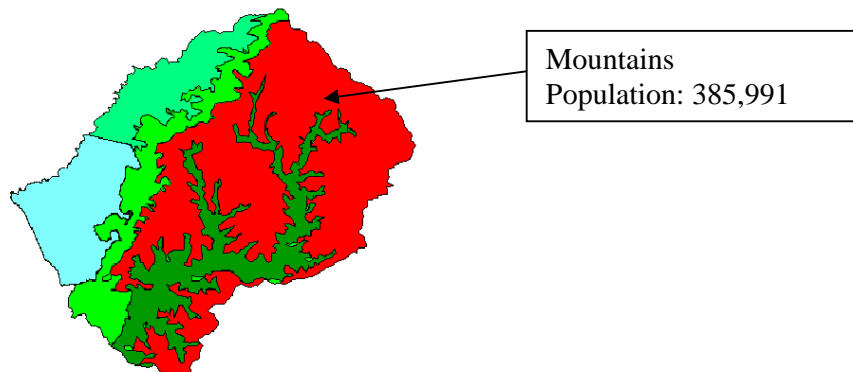
3.2.2 Zone description

The Mountains livelihood zone supports a population of 385,991 people mainly in the Districts of Thaba -Tseka and Mokhotlong. The main crops in the zone are maize, wheat, sorghum, beans and peas. Other crops such as potatoes, lentils and pumpkins are grown on a smaller scale. These crops are used for both food and cash especially for the wealthier households who get significant quantities of crop production.

Livestock holding in the area are high and the 'middle' and 'better – off' wealth groups have large flocks of sheep and goats exploiting the extensive rangelands.

Livestock products especially as wool and mohair are main sources of cash in the zone.

The significant source of income for the 'middle' wealth group is remittance and salaries while for the 'poor' and 'very poor', casual labour is a main source of income.



3.2.3 Current Hazards

The dry spell at the beginning of the planting season caused delays in planting and this affected the crop yields especially for the maize crop. The subsequent heavy rains caused water logging and this affected the crop conditions at a critical weeding stage. In addition, the Mountain zone experienced mild to heavy frosts in February and March and this destroyed much of the crop especially maize.

The massive water logging reduced weeding opportunities for poorer household who access food from this activity. The 'very poor' accessed 22% of their total food consumption in the baseline year from weeding. This year they will access only 18% of total consumption from weeding.

The price of maize has increased by 20% over the baseline price and this scenario is not likely to change given the expected low maize production South Africa.

3.2.4 Problem specification for the Mountains

Key parameters in this scenario	Percentage of baseline
Maize production	60%
Sorghum production	70%
Beans	50%
Price of maize	120%
Food from labour	80%
Cash from agric labour	80%
Cash from vegetable sales	80%
Cash from crop sales	50 - 70%
Inflation	105%

3.2.5 Outcome

The combined effect of reduced crop production, reduced food income from agricultural labour, the increase in the price of staple and general impact of inflation on household expenditure means that 'very poor' households will miss some of their food entitlements.

The analysis has taken into account all potential coping strategies the households may employ but for the 'very poor' expanding on such options is very difficult. For example, the food from agricultural labour is a main source of food for the 'very poor' but in a situation where the season has been fairly poor, even such opportunities are reduced.

The 'very poor' households will not be able to meet all their minimum energy requirements even if they switch the cash meant for essential expenditure on things like education, health and grinding. It is also very important not to let the 'very poor' switch this essential expenditure because it would have negative impact on livelihoods.

The above situation has resulted in a food and cash deficit for the 'very poor' households with a population of 49,126 and requires support amounting to either 2,901MT or M6,936,559.

3.3 The Northern Lowlands

3.3.1 Main Conclusions and Implications

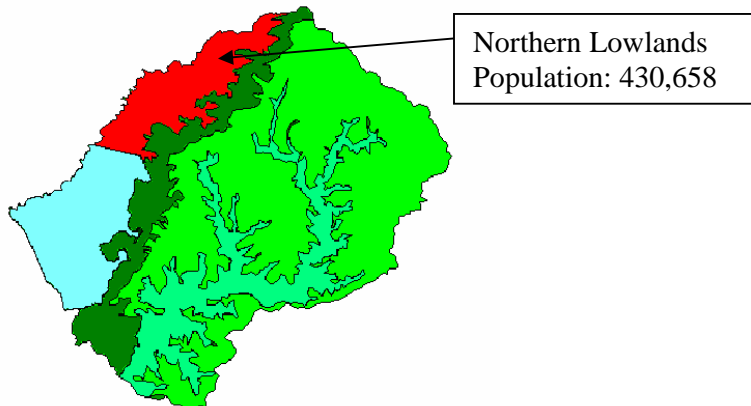
The Northern lowlands livelihood zone supports a population of 430,658 people and occupies the agriculturally productive lowlands to the north of Maseru. The zone received timely rains from September to October followed by a short dry spell in November. This affected the crop but it recovered with the return of regular rains in December – January. The heavy rains that peaked in January caused some water logging and this affected the crop yield because weeding had to be delayed.

The regular and plentiful rains signaled a potential good harvest for maize and sorghum though the crop could have done much better if it was not for the short dry spell and the heavy rains which caused water logging. This rain made crops to grow tall and some farmers feared it would be difficult for maize crop to silk and develop cobs. In other cases water – logging became a problem, maize and bean crops were badly affected, but sorghum performed very well despite the water logging.

The consistently good rainfall has contributed massively to notable range recovery, which was adequate for livestock. Milk production increased as a result of improved condition of rangelands and livestock.

The price of maize has increased by 25% over the baseline price and this scenario is not likely to change given the expected low maize production South Africa. The fact that the 'very poor' and 'poor' purchase about 20% of their total food consumption indicates that these population groups will remain vulnerable to increases in the price of maize.

All wealth groups in this zone will be able to meet their minimum energy requirements for 2006/07 while maintaining the minimum essential expenditure on health, education and inputs. However, any further increases in the price of maize will make it difficult for the 'very poor' to obtain all their food entitlements. It is therefore recommended that this group be watched closely in the coming months.



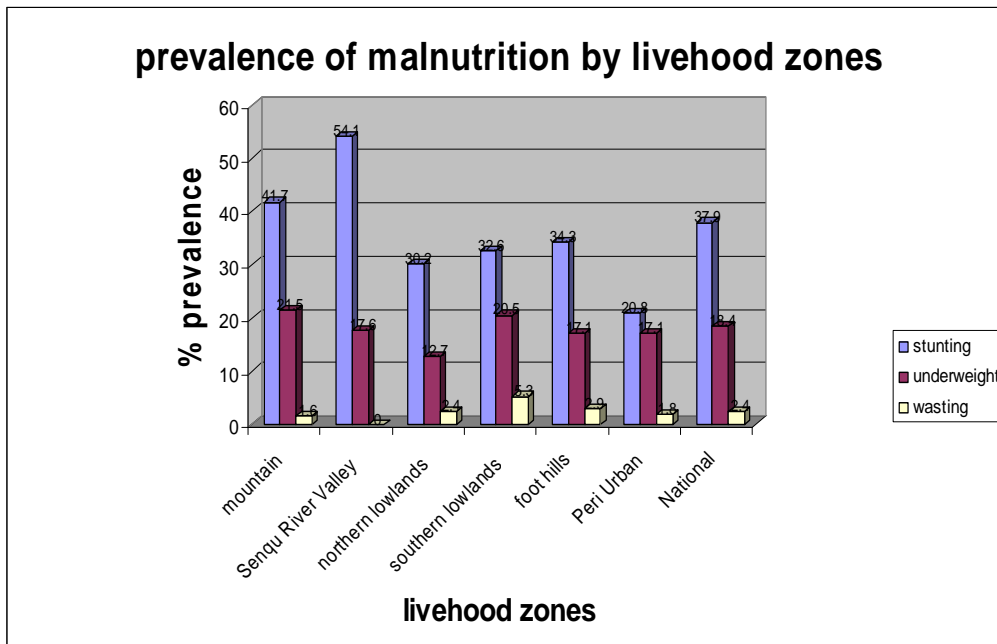
It should be noted that although most of the households are expected to make ends meet till the next harvest in 2007, there will always be pocket of households that require social assistance. These may include malnourished children, HIV/AIDS affected poor households, orphans and vulnerable children etc. Such groups may still require assistance through the normal programmes and should not be ignored

based on the LVAC conclusion that 'all wealth groups will meet their minimum energy requirements in 2006/07'.

In March 2006, the LVAC in collaboration with the Food and Nutrition Coordinating Office (FNCO), Ministry of Health and Social Welfare and World Food Programme (WFP) carried out a nutrition assessment in each of the livelihood zones. The nutrition assessment was restricted to weight for height and height for age measures for children below 5 years. The aim was to understand the nutrition status in the zone and how this relates to the general food security situation of the zone. The overall finding of the nutrition assessment shows high levels of stunting which is an indicator of chronic vulnerability and in some zones high levels of wasting which indicates acute malnutrition.

The nutrition trends identified by the assessment generally correspond to the findings of the National Demographic and Health survey conducted in 2004 with the exception of one zone (Senqu river valley) and a recommendation has been made to review the results of this zone.

The graph below shows the geographical distribution of malnutrition in Lesotho. The purpose of this nutrition assessment was to incorporate nutrition information into vulnerability analysis as an important outcome indicator of vulnerability. In the past nutrition information has not been accessed in a timely manner and as such LVAC analysis has lacked the nutrition angle.



It is worth noting that even zones such as the Northern lowlands where stunting levels are lower than national average, there is still fairly high level of wasting. This is an indication that in spite of the generally good food security outlook, some populations will still require urgent intervention to deal with wasting and underweight cases.

The Senqu river valley (SRV) results show very high levels of stunting and this is consistent with earlier LVAC analysis that classifies the Senqu river valley as having chronic vulnerability. Senqu river valley results show very low level of acute

malnutrition and this could be a result of the humanitarian interventions in the area for the last year or so. However, in the Southern lowlands where similar levels of interventions have happened, acute malnutrition is highest. The reasons for this needs to further investigated to inform future programmes.

The results of this study also show that the Mountains livelihood zone has high levels of stunting compared to the rest of the zones and the national average. In the past, LVAC has classified this zone as moderately vulnerable but this result seems to disprove that analysis.

Overall, all livelihood zones show high levels of stunting and this directly relates to high levels of vulnerability and poverty in this country. Income levels for the 'poor' and 'very poor' households, who constitute about 50% of the total population, are very low ranging between M1500 and M3000 per year for the majority of households in the two wealth groups. **(Full nutrition report attached as appendix A).**

3.4 The Peri-Urban Areas

3.4.1 Main Conclusions and Implications

The current year experienced both dry spells and heavy rains at different times of the season and this disrupted planting patterns. The normal start of planting time (September) was affected by long dry spells and as a result most planting started in November. In addition to late planting, heavy rains caused massive water logging, which affected weeding. Frost in May caused more damage to the maize crop that was planted in late November – December.

The heavy rains and subsequent water logging affected weeding activities which is a significant source of food (contributing 10%) annual consumption in the baseline year) and cash (about 35% of annual income) for the 'very poor'. A similar pattern obtains for the 'poor' households as well. The sorghum crop appeared to be doing much better than the maize crop but the beans crop was really badly affected and not much production was expected.

In this zone, the price of maize has been increasing since January and by May it had increased by 20% over the baseline price. In addition, access to food and cash from weeding and other agricultural activities was reduced to 60% of baseline access.

As a consequence of the above, in addition to the increase in the cost of the minimum non-staple and essential baskets due to annual inflation at 5%, the 'very poor' will miss a huge percentage of their annual food entitlements. Unlike with the rest of the livelihood zones, the 'poor' in the Peri urban zone will also miss a significant percentage of their annual food entitlements.

Based on this scenario, the 'very poor' households with a population of 17,386 people are likely to face a food deficit of 48% per person (equivalent to about six months of food needs) and an expenditure deficit of M396 per household. The maize required to fill the food deficit is 1767MT and cash equivalent is M4,241,030. The total expenditure deficit for the 'very poor' households is M984,455 and its maize equivalent is 410MT.

In addition to this, the 'poor' households who constitute 40% of total households in the zone and with a population of 40,907 people are likely to face a food deficit of 4% per person and an expenditure deficit of M396 per household. The maize required to fill the food deficit is 358MT and cash equivalent is M858,067. The total expenditure deficit for the 'poor' households is M2,316,364 and its maize equivalent is 965MT.

Expressed in food terms, the combined expenditure and food deficit for the 'very poor' and the 'poor' will be a maize equivalent of 3500MT. In cash terms, the expenditure and food deficit can be covered by M8,399,916.

Affected population	Food deficit (a)	Expenditure deficit (b)	Food equivalent (a & b combined)	Cash equivalent (a & b combined)
58,293	2125MT	M3,300,819	3500MT	M8,399,916

3.4.2 Zone Description

The zone comprises of areas close to the main urban areas in Lesotho and stretch from Butha Buthe to Mohale's Hoek. The new livelihood zone maps produced by BOS indicate Peri urban areas in the Districts of Mokhotlong, Thaba Tseka, Quthing and Qacha's Nek as well. The key feature of this zone is that it has characteristics of both urban and rural Lesotho. Although crop production is practiced, the tendency is that the 'middle' and 'better - off' households obtain a significant portion of their annual food need from own production.

The majority of poorer households engage in agricultural activities as a source of income in addition to selling labour in exchange for food. The zone supports a population of 93,648 and is characterised by extensive land degradation especially as you move southwards towards the Southern Lowlands. The terrain in the southern parts becomes rocky very dry and dry riverbeds are common features.

Sources of income for the 'poor' and 'very poor' are predominantly casual labour opportunities in weeding, house smearing, home brewing, washing and wood collecting. Employment and remittances is the major source of income for the 'middle' and the 'better - off' as well. The difference in employment activities for the wealthier and the poorer households is that while the poorer households predominantly depend on casual labour, the 'middle' and 'better- off 'are engaged in skilled and semi - skilled labour activities.

3.4.3 Current Hazards

The dry spell at the beginning of the planting season caused delays in planting and this affected the crop yields especially for the maize crop. The subsequent heavy rains caused water logging and this affected the crop conditions at a critical weeding stage. In addition, the zone experienced frost in May and this destroyed much of the crop especially maize.

The massive water logging reduced weeding opportunities for poorer household who access food and cash from this activity. The 'very poor' accessed 10% of their total food consumption and 35% of annual cash income in the baseline year from weeding. This year they will access only 6% of total food consumption and 25% of cash income from weeding.

The price of maize has increased by 20% over the baseline price and this scenario is not likely to change given the expected low maize production South Africa.

3.4.4 Problem specification for the Peri urban

Key parameters in this scenario	Percentage of baseline
Maize production	65%
Sorghum production	70%
Beans	50%
Price of maize	120%
Food from agric labour	60%
Cash from agric labour	60%
Cash from vegetable sales	80%
Cash from crop sales	50 - 70%
Inflation	105%

3.4.5 Outcome

The combined effect of reduced crop production, reduced food and cash income from agricultural labour, the increase in the price of staple and general impact of inflation on household expenditure means that 'very poor' and 'poor' households will miss significant proportions of their food entitlements.

The analysis has taken into account all potential coping strategies the households may employ but for the 'very poor' and 'poor' expanding on such options is very difficult. For example, the food and cash from agricultural labour is a main source of food for the 'very poor' and 'poor' but in a situation where the season has been fairly poor, even such opportunities are reduced. Other casual labour opportunities could be potentially increased but this increased supply of labour could lead to reduced pay and thus no significant increase in total incomes.

The 'very poor' and 'poor' households will not be able to meet all their minimum energy requirements even if they switch the cash meant for essential expenditure on things like education, health and grinding. It is also very important not to let the 'very poor' and 'poor' switch this essential expenditure because it would have negative impact on livelihoods.

The above situation has resulted in a food and cash deficit for the 'very poor' and 'poor' households with a population of 58,293 and requires support amounting to either 3500MT or M8,399,916.

3.5 The Southern Lowlands

3.5.1 Main Conclusions and Implications

Prolonged dry spells were experienced during the growing season and at that time most fields were not planted. The second part of the cropping season was marked by heavy rainfall, which started end of December lasting until March. During this period most households took advantage of the reliable rains and planted their crops. However, this was already considered late, since the cereal crops needed a longer period to mature and also the onset of early frost from the end of April and beginning of May is considered another limiting factor to a good production. The heavy rains led to water logging and rapid growth of weeds hence it interfered with effective weeding and maturation of crops.

The heavy rains and subsequent water logging affected weeding activities, which is a significant source of food (contributing 15% of annual consumption in the baseline year) and cash (about 20% of annual income) for the 'very poor'. A similar pattern obtains for the 'poor' households as well. The sorghum crop appeared to be doing much better than the maize crop but the beans were badly affected and not much production was expected.

In this zone, the price of maize has been increasing since January and by May it had increased by 25% over the baseline price. In addition, access to food and cash from weeding and other agricultural activities was reduced to 70% of baseline access.

As a consequence of the above, in addition to the increase in the cost of the minimum non staple and essential baskets due to annual inflation at 5%, the 'very poor' will miss some of the annual food entitlements. Based on this scenario, the 'very poor' households with a population of 97,333 people are likely to face a food deficit of 8% per person and an expenditure deficit of M381 per household. The maize required to fill the food deficit is 1663MT and cash equivalent is M4,157,474. The total expenditure deficit for the 'very poor' households is M7,420,155 and its maize equivalent is M2968.

Expressed in food terms, the combined expenditure and food deficit for the 'very poor' will be a maize equivalent of 4631MT. In cash terms, the expenditure and food deficit can be covered by M11,577,629.

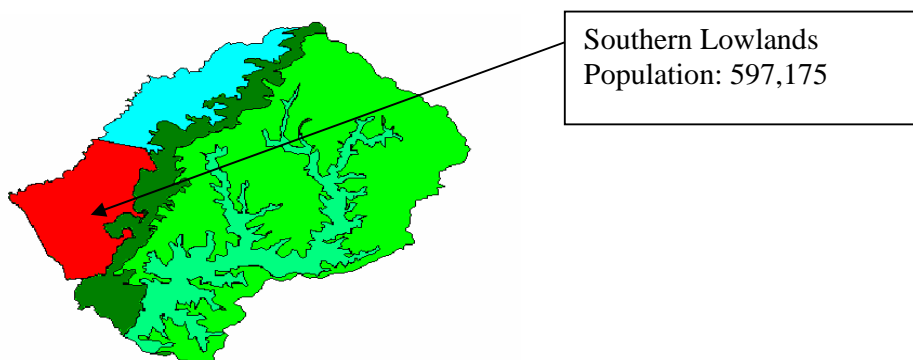
Affected population	Food deficit (a)	Expenditure deficit (b)	Food equivalent (a & b combined)	Cash equivalent (a & b combined)
97,333	1663MT	M7,420,155	4631	M11,577,629

3.5.2 Zone Description

The Southern Lowlands covers the districts of Maseru south of the Qeme Plateau, Mafeteng and Mohale's Hoek and supports a population of 597,175 people. It is characterised by dry conditions and poor soils which makes its agricultural productivity very low in comparison to the northern lowlands and Foothills. The main sources of livelihood are casual labour, petty trade in its various forms, employment and agricultural production.

The main crops grown are maize, sorghum and beans. Mixed cropping is commonly practiced especially with maize, beans and pumpkin. Sharecropping is a typical crop production system in the zone and is usually carried out in two types of arrangements. One is where the provision of inputs is by one party and the second arrangement involves sharing of labour and inputs by both parties.

Sources of income for the poor and very poor are predominantly casual labour opportunities in weeding, house smearing, home brewing and washing. Employment and remittances is the major source of income for the 'middle' and the 'better - off' as well. The difference in employment activities for the wealthier and the poorer households is that while the poorer households predominantly depend on casual labour, the 'middle' and 'better- off' are engaged in skilled and semi - skilled labour activities.



3.5.3 Current Hazards

The dry spell at the beginning of the planting season caused delays in planting and this affected the crop yields especially for the maize crop. The subsequent heavy rains caused water logging and this affected the crop conditions at a critical weeding stage. In addition, the zone experienced frost in May and this destroyed much of the crop especially maize.

The massive water logging reduced weeding opportunities for poorer household who access food and cash from this activity. The 'very poor' accessed 15% of their total food consumption and 20% of annual cash income in the baseline year from weeding. This year they will access only 11% of total food consumption and 14% of cash income from weeding.

The price of maize has increased by 25% over the baseline price and this scenario is not likely to change given the expected low maize production South Africa.

3.5.4 Problem specification for the Southern Lowlands

Key parameters in this scenario	Percentage of baseline
Maize production	70%
Sorghum production	70%
Beans	70%
Price of maize	125%
Food from agric labour	70%
Cash from agric labour	70%
Cash from crop sales	50 - 70%
Inflation	105%

3.5.5 Outcome

The combined effect of reduced crop production, reduced food and cash income from agricultural labour, the increase in the price of staple and general impact of inflation on household expenditure means that 'very poor' households will miss significant proportions of their food entitlements.

The analysis has taken into account all-potential coping strategies the households may employ but for the 'very poor' expanding on such options is very difficult. For example, the food and cash from agricultural labour is a main source of food for the 'very poor' but in a situation where the season has been fairly poor, even such opportunities are reduced. Other casual labour opportunities could be potentially increased but this increased supply of labour could lead to reduced pay and thus no significant increase in total incomes.

The 'very poor' households will not be able to meet all their minimum energy requirements even if they switch the cash meant for essential expenditure on things like education, health and grinding. It is also very important not to let the 'very poor' switch this essential expenditure because it would have negative impact on livelihoods.

The above situation has resulted in a food and cash deficit for the 'very poor' households with a population of 97,339 and requires support amounting to either 4631MT or M11,577,629.

3.6 The Senqu River Valley

3.6.1 Main Conclusions and Implications

In this zone, the first rains are normally expected at the end of July, but this season they started in December. Although some rain was received at the end of October it was not sufficient for planting. Normally the planting time is from August to September for Sorghum and October to November for Maize and Beans. But this year due to late rains, Sorghum was only planted at the end of October. Maize and Beans were planted at the end of November to December. Therefore it is anticipated that crop yields will decrease, as much of the crops had not yet reached maturity at the normal harvesting time is June.

The heavy rains and subsequent water logging affected weeding activities, which is a significant source of food (contributing 17% of annual consumption in the baseline year) and cash (about 27% of annual income) for the 'very poor'. A similar pattern obtains for the 'poor' households as well. The sorghum crop appeared to be doing much better than the maize crop but the beans crop was really badly affected and not much production was expected.

In this zone, the price of maize has been increasing since January and by May it had increased by 25% over the baseline price. In addition, access to food and cash from weeding and other agricultural activities was reduced to 80% of baseline access.

As a consequence of the above, in addition to the increase in the cost of the minimum non-staple and essential baskets due to annual inflation at 5%, the 'very poor' will miss some of the annual food entitlements. Based on this scenario, the 'very poor' households with a population of 14265 people are likely to face a food deficit of 7% per person and an expenditure deficit of M359 per household. The maize required to fill the food deficit is 213MT and cash equivalent is M532,470. The total expenditure deficit for the 'very poor' households is M1,024,521 and its maize equivalent is 410MT.

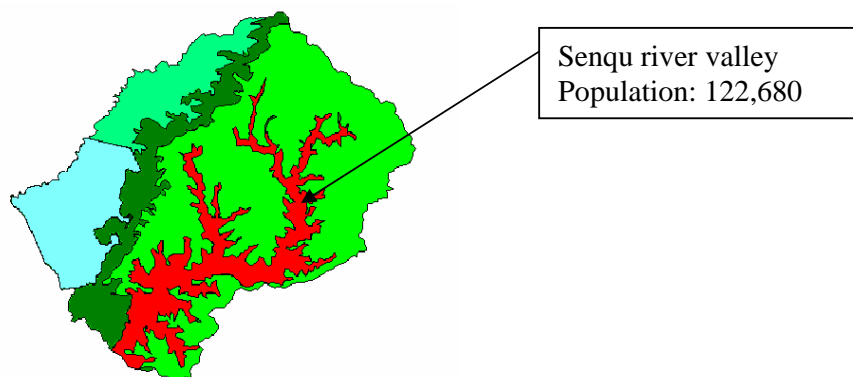
Expressed in food terms, the combined expenditure and food deficit for the 'very poor' will be a maize equivalent of 623MT. In cash terms, the expenditure and food deficit can be covered by M1,556,991.

Affected population	Food deficit (a)	Expenditure deficit (b)	Food equivalent (a & b combined)	Cash equivalent (a & b combined)
14,265	213MT	M1,024,521	623	M1556,991

3.6.2 Zone Description

The Senqu river valley supports a population of 122,680 people and is the most chronically vulnerable in the country. It is characterised by dry conditions and poor soils which makes its agricultural productivity very low in comparison to the other zones. The main sources of livelihood are sale of livestock, casual labour and petty trade in its various forms, employment and agricultural production.

Sources of income for the 'poor' and 'very poor' are predominantly casual labour opportunities in weeding, house smearing, home brewing and washing. Employment and remittances is the major source of income for the 'middle' and the 'better - off' as well. The difference in employment activities for the wealthier and the poorer households is that while the poorer households predominantly depend on casual labour, the 'middle' and 'better -off' are engaged in skilled and semi - skilled labour activities.



3.6.3 Current Hazards

The dry spell at the beginning of the planting season caused delays in planting and this affected the crop yields especially for the maize crop. The subsequent heavy rains caused water logging and this affected the crop conditions at a critical weeding stage. In addition, the zone experienced early frost in April as normal frost fall is expected towards end of May and this destroyed much of the crop especially maize.

The massive water logging reduced weeding opportunities for poorer household who access food and cash from this activity. The 'very poor' accessed 17% of their total food consumption and 27% of annual cash income in the baseline year from weeding. This year they will access only 14% of total food consumption and 19% of cash income from weeding.

The price of maize has increased by 25% over the baseline price and this scenario is not likely to change given the expected low maize production South Africa.

3.6.4 Problem specification for the Senqu river valley

Key parameters in this scenario	Percentage of baseline
Maize production	65%
Sorghum production	80%
Beans	50%
Price of maize	125%
Food from agric labour	80%
Cash from agric labour	80%
Cash from crop sales	50 - 80%
Inflation	105%

3.6.5 Outcome

The combined effect of reduced crop production, reduced food and cash income from agricultural labour, the increase in the price of staple and general impact of inflation on household expenditure means that 'very poor' households will miss significant proportions of their food entitlements.

The analysis has taken into account all potential coping strategies the households may employ but for the 'very poor' expanding on such options is very difficult. For example, the food and cash from agricultural labour is a main source of food for the 'very poor' but in a situation where the season has been fairly poor, even such opportunities are reduced. Other casual labour opportunities could be potentially increased but this increased supply of labour could lead to reduced pay and thus no significant increase in total incomes.

The 'very poor' households will not be able to meet all their minimum energy requirements even if they switch the cash meant for essential expenditure on things like education, health and grinding. It is also very important not to let the 'very poor' switch this essential expenditure because it would have negative impact on livelihoods.

The above situation has resulted in a food and cash deficit for the 'very poor' households with a population of 14265 and requires support amounting to either 623MT or M1,556,991.

Appendices

Appendix A

2006 Nutrition Survey

LVAC with Technical support from FNCO, MoHSW and WFP

March 2006

Definition of terms

1. Anthropometric Indices

Measurements	Indicator	
*Weight for age	Current under nutrition	Underweight
**Height for age	Long term	Stunting
**Weight for height	Short term	wasting

Table1. Anthropometric Indices

* Acceptable

**Preferred indices because they discriminate between acute & chronic under nutrition

Nutrition indicator	Low (%)	Moderate (%)	High (%)	Very high (%)
Stunting	< 20	20 -29	30 - 39	> 40
Underweight	< 10	10 -19	20 - 29	
Wasting	< 5	5 - 9	10 -14	

Table 2. WHO reference standards for interpreting under nutrition.

- Under nutrition
- Under five
- Vulnerability
- Food insecurity
- Anthropometric measurements
- Sentinel site
- Length board
- Stadiometre

Introduction and Background

Under nutrition in Lesotho is a result of complex socio-economic and biological interactions, which affects physical growth, as well as physical activity, resistance to infection, cognitive and social development. Since the declaration of emergency in 2002, Lesotho has been experiencing increased vulnerability due to different dimensions of food insecurity (a decline in agricultural productivity, recurring drought and high levels of poverty). This has partly manifested itself in high under nutrition rates according to WHO standards implying that under nutrition among under fives in Lesotho remains a public health concern. Refer to table 3 and 4 illustrating trends in under nutrition.

Under-nutrition rates in Lesotho were highest in 2000 while in 2002 there was a decline, however, in 2004 a sharp increase was observed. Chronic under nutrition remains to be the most significant form of under nutrition in Lesotho, currently at 38.2% as reported by the DHS 2004.

Study Year	Sample Size	Underweight	Stunting	Wasting
1976	1,710	22.0	22.7	3.4
1992	4,687	15.8	33.0	2.4
2000	3,737	17.8	45.4	5.4
2002	9,093	15.4	30.7	3.2
2004	1,620	19.8	38.2	4.3

Table 3. Trends of under nutrition in Lesotho by year of study.

Ecological Zones	Stunting		Wasting		Underweight	
	*2002	2004	*2002	2004	*2002	2004
Low lands	28.4	32.9	3.5	3.7	13.7	14.2
Foothills	35.3	38.9	2.9	4.0	19.5	21.0
Mountains	37.5	45.0	4.1	4.2	21.3	26.6
S. River valley	31.6	44.6	3.1	9.6	15.4	27.4
Urban	26.3	30.0	2.3	4.0	11.4	16.0

* at 95% Confidence Interval

Table 4: Comparison of under nutrition levels by ecological zones (2002 EPI and nutrition survey and 2004 DHS survey).

Purpose

In view of this increased vulnerability and hunger in Lesotho, the two information systems namely the National Nutrition Surveillance System (NNSS) and Lesotho Vulnerability Assessment Committee (LVAC) will collaborate to incorporate nutrition information into vulnerability analysis as an important outcome indicator of vulnerability. In the past nutrition information has not been accessed in a timely manner and as such LVAC analysis has lacked the nutrition angle.

FNCO through its National Nutrition Surveillance System (NNSS), FNCO does, among others, food price monitoring and weight for age measurements. LVAC and FNCO have agreed to specifically focus on getting timely data on these two activities to feed into LVAC analysis. The detailed NNSS data will certainly be included in our analysis as long as it is released in time. In the short term, monitoring data on price of maize and weight for age (for children under 5 years) will be collected specifically for LVAC analysis.

Limitations

- The results of the study should be interpreted with caution as this was designed to study only three basic variables of nutritional status due to budgetary and time constraints. For instance socio-economic, episodes of illness at the time of study were not included.

Main Findings:

Summary characteristic background of children classified as under nourished according to stunting, underweight and wasting in Lesotho, February 2006.

Background characteristics	Number of children	Stunting		Under weight		Wasting	
		< -3 SD	< -2 SD	< -3 SD	< -2 SD	< -3 SD	< -2 SD
Age group (months)							
< 6	105	7.6	11.4	0	1.0	1.0	2.9
6 - 11	94	29.8	46.8	1.1	17.0	1.1	3.2
12 - 23	149	30.2	55.0	6.0	26.2	0.0	4.0
24 - 35	161	11.8	36.6	3.7	21.1	0.6	2.5
36 - 47	170	11.2	42.9	1.8	19.4	0.0	0.0
48 - 59	168	8.3	32.7	3.0	19.6	0.6	2.4
Sex							
Male	401	14.4	39.2	2.5	20.0	0.5	2.1
female	446	15.9	36.7	3.1	17.1	0.4	2.6
Low birth weight	38	33.3	64.1	2.6	41.0	0	2.6
Livelihood zones							
Southern lowlands	181	8.4	32.6	2.6	20.5	0.5	5.3
Northern lowlands	112	10.3	30.2	1.6	12.7	0.0	2.4
Senqu River Valley	133	25.7	63.5	0.7	17.6	0.0	0.0
Mountain	214	19.4	41.7	3.6	21.5	0.0	1.6
Foot hills	103	14.3	34.3	5.7	17.1	1.9	2.9
Peri urban	104	9.9	20.8	2.7	17.1	0.9	1.8
TOTAL	847	15.2	37.9	2.8	18.4	0.4	2.4

National nutritional status

- Nationally the data shows stunting levels of 37.9%, wasting 2.4% and underweight 18.4%.
- This figures are comparable with the recent DHS conducted in December 2004, where stunting was reported to be 38.2%, wasting 4.3% and underweight 19.8% with the exception of wasting that seemed to be significantly lower compared to DHS findings.
- The data was disaggregated by sex to show gender differences in under nutrition prevalence.
 - For both stunting and underweight boys experience higher prevalence rates.
 - There was no variation in wasting for both genders.

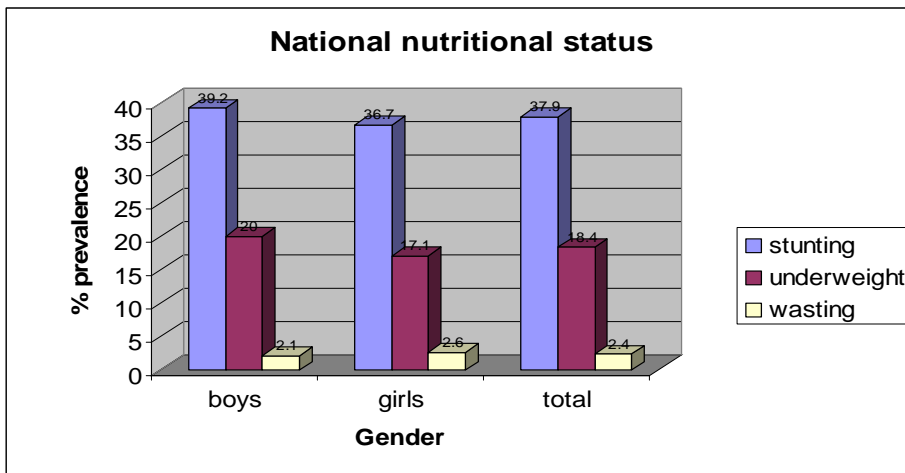


Fig. 1 National Prevalence

Prevalence of under nutrition by age group

- The highest peak of under nutrition was observed between 12 to 23 months age group for all anthropometric indicators.
- A striking observation is the peak under nutrition at age 12 to 23 months, which can be explained by poor dietary intake, which mainly consists of soft porridge without enrichment (DHS, 2006). This age is characterized by peak physiological growth where the demand for growth supporting nutrients is highest. Furthermore, the DHS shows that this age group experiences high morbidity and mortality.

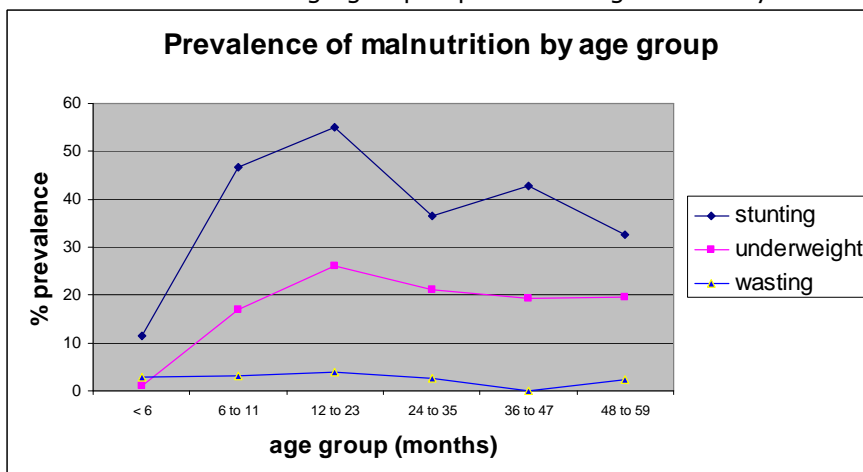


Fig. 2 National prevalence by age group
Geographic distribution of under nutrition

- Wasting:
 - Wasting shows low prevalence in the 5 livelihood zones, with the exception of southern lowlands with medium prevalence of 5.3%.
- Stunting:
 - The severity of stunting ranges from high to very high. The highest is observed in the mountains and Senqu river valley 41.7% and 54.1% respectively.
 - This data shows that stunting is the most prominent form of under nutrition in Lesotho, a clear indication of vicious cycle of chronic (long term) poverty, under nutrition and more recently HIV and AIDS. This is confirmed by previous nutrition studies, which show an increasing trend in under nutrition. Furthermore, the recent DHS shows a similar trend in under nutrition trend.
 - The observed rates are consistent with underlying chronic vulnerability revealed by the LVAC findings especially in the Senqu river valley and southern lowlands. The Senqu river valley has no acute under nutrition and this may be explained by the food aid intervention in the zone. This is in

contrast with DHS, which found 9.6% wasting. Though LVAC does not classify mountains as having chronic vulnerability, the present study shows that the mountains rank second in stunting levels. This may indicate the existence of pockets of chronic vulnerability in the mountains.

- Underweight:
 - Underweight ranges from moderate (12.7%) in the northern lowlands to high (21.5%) in the mountains across all regions. According to LVAC, these are areas, which are classified as not highly vulnerable.

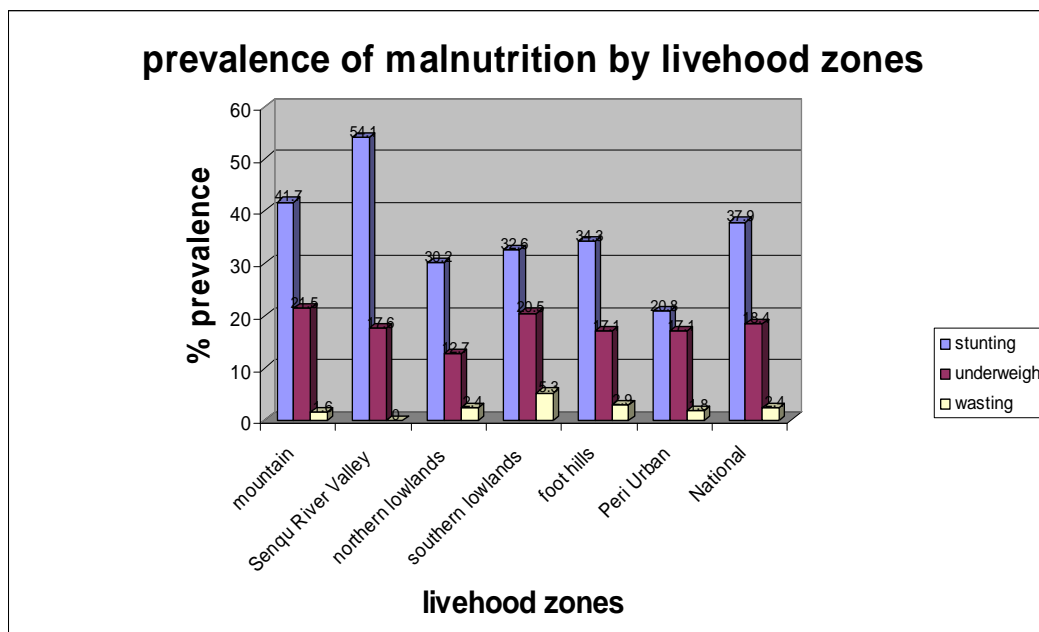


Fig. 3 Geographic distribution of under nutrition

Birth weight and under nutrition

Despite high level of under nutrition, the study found that most Basotho children are born with desirable birth weights above 2.5 kg. Growth starts to falter from the weaning age, this implies that poor feeding and care practices may not optimal exposing children to vicious cycle of infection and under nutrition.

Towards the Millennium Development Challenges

Despite the many interventions addressing under nutrition in Lesotho, the evidence shows insignificant improvement in nutritional rates.

Unicef report on the progress for children (2006) states that unless progress is accelerated in the area of child nutrition, the MDG target will not be met.

Recommendations

- Nutrition monitoring should be strengthened as Lesotho faces recurring hunger and vulnerability.

- There is need to resuscitate community growth monitoring activities (regular weighing, calibration of weighing scales and accurate recording of measurements in the growth charts).
- Strengthening of nutrition education, which emphasizes weaning, and introduction of complementary feeds.
- Nutrition components should be part and parcel of community development activities.

Note on Methodology Used

1. Survey Design

- a. This is a cross sectional study which was conducted for a period of 2 weeks. In this study anthropometric measurements were utilized to assess nutritional status of children 0-59 months. The standard indices that describe the nutritional status were weight, height and age (see Table 1 and 2).

2. Sampling

This is a 30 by 30 cluster survey, which was conducted in the nutrition sentinel sites. These nutrition sentinel sites were selected using probability-sampling framework determined by Bureau of Statistics. Therefore, the 30 sites were selected from this predetermined sample including 5 Community household surveillance (CHS) criteria for selecting sentinel sites.

Because of this probability sampling, there was no need to further employ probability sampling for selection of villages. Three villages per site were selected randomly by spinning a bottle with the health centre as starting point. The clockwise direction was followed to select the three villages. In each village, ten children below the age of five (born between the year 2000 and 2005) were measured. This yielded a total study population of 900 ±, which is a reasonable number to calculate the nutritional indices of interest.

Box 1 Selection Criteria for sentinel sites

- At least 2 sentinel sites per district with larger populations such as Leribe have 3 sites.
- The sites were selected such that all livelihood zones are represented.
- Avoided selecting sites that are close to one another
- Sites selected from both high and low food production areas
- Some sites selected from areas close to major development initiatives such as factories.
- Accessibility issues were also considered and sites that could be difficult to access were left out.

3. Training & Data collection

b. Measurements:

Measurements were recorded to the nearest 0.1 cm and 0.1 kg

	Weight	Height
0 - 2yrs	Mother child scale: Unicef	Length board
2 - 5 yrs	Mother/child scale: Unicef & scale	Standiometre

Table 5: Requirements for measurements

c. Repeated measures protocol:

The trainer and trainee measured the same subjects until the difference between the two of them is good, or at least fair. Acceptable measurement difference in length, height, and weight is less than 1% of the measurement.

d. Technical Error measurement:

During the actual data collection three measurements were taken to reduce technical error of measurement and reliability. (Within observer and between

observer). To further improve the quality of data, measuring scales were regularly calibrated.

NB: Measurement protocols (b & c) were done for quality control during training and supervision.

	Training	Field Work	Districts
Week 1	27 th Feb	28-4 th March	Thaba Tseka, Mokhotlong
			Butha Buthe, Leribe, Berea
Week 2	6 th March	7-10 th March	Maseru, Mafeteng, Mohale's Hoek
			Quthing, Qacha's Nek

Table 6: Fieldwork schedule

e. Data Collection

Data was collected in two phases as indicated in Table 6, by 5 teams made up of one District FNCO, one CHW and supervised by one nutritionist.

f. Data Analysis:

Data was analysed with EPI Info version 6. Each of the three nutritional indicators stunting, underweight and wasting was expressed in standard deviations (Z-scores) from the mean reference population. Deviations of the indicators below -2 standard deviations (SD) indicates that the children are moderately and severely affected.

Appendix B

National Cereal Balance Sheet for the 2006-07 Marketing Year.

ANNUAL CEREAL BALANCE FOR THE 2006/07 MARKETING YEAR				
Annual Balance Sheet as at 1st April 2006				
Figures in (000)				
	<u>Maize</u>	<u>Wheat</u>	<u>Sorghum</u>	<u>Total</u>
1. Domestic Availability	108.690	46.463	17.800	172.953
1.1 Opening Stock (01/April/2006)	5.690	40.863	0	46.553
Formal (Monitored)	5.690	40.863	0	46.553
On Farm (Unmonitored)	0	0	0	0
1.2 Gross Harvest	103.000	5.600	17.800	126.400
2. Total Domestic Requirements	276.4	105.820	32.600	414.820
2.1 Domestic Consumption Requirements	276.4	105.820	32.600	414.820
2.2 Feeds use, other uses & losses	0	0	0	0
3. Domestic Shortfall/Surplus	-167.71	-59.357	-14.800	-241.867
4. Total Planned Imports	163.371	80.157	0	243.528
4.1 Commercial Imports	141.702	80.157	0	221.859
4.2 Food Aid - Agencies	21.669	0	0	21.669
4.3 Food Aid - Government	0	0	0	0
5. Imports Received	10.046	1.362	0	11.408
5.1 Commercial Imports Received	10.046	1.362	0	11.408
5.2 Food Aid Received - Agencies	0	0	0	0
5.3 Food Aid - Government	0	0	0	0
6. Expected Imports	153.325	78.795	0	232.2
6.1 Commercial Imports Expected	131.656	78.795	0	210.451
6.2 Food Aid Expected - Agencies	21.669	0	0	21.669
6.3 Food Aid - Government	0	0	0	0
7. Uncovered shortfall/Import Gap	-4.339	20.800	-14.800	1.661
8. Current Stock Level 30th April 2006	4.640	35.671	0	40.311

Appendix C

Foothills LZ									
BASELINE ACCESS				PROBLEM SPECIFICATION			RESPONSE		
Sources of Food : Very Poor HHs									
	Baseline Access	Expand -ability	Max. Access	Problem %norm	Food Intake kcals/day		Con.prob %norm	Max.curr Access	Curr. Access
Cows' milk - wet	0%	0%	0%	100%	baseline:		100%	0%	0%
Own meat	2%	0%	2%	100%	2100		100%	2%	2%
					for				
Green cons maize	2%	0%	2%	60%	analysis:		60%	1%	1%
Maize	8%	0%	8%	60%	2100		60%	5%	5%
Sorghum	6%	-6%	0%	70%			70%	0%	0%
Beans	0%	0%	0%	50%			50%	0%	0%
Labour: weeding	12%	0%	12%	80%			80%	9%	9%
Labour: other	4%	0%	4%	100%			100%	4%	4%
Wild food	1%	0%	1%	100%			100%	1%	1%
School feeding	5%	0%	5%	100%			100%	5%	5%
	0%	0%	0%	100%			100%	0%	0%
	0%	0%	0%	100%			100%	0%	0%
	0%	0%	0%	100%			100%	0%	0%
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%	63%	63%
food deficit total	95%	-7%	140%					93%	7%
								adj.fact =	2.15
Income : Very Poor HHs									
	Baseline Access	Expand -ability	Max. Access	Problem %norm	Comm. Price	Staple Price	Con.prob %norm	Max.curr Access	Curr. Access
Cash									
Wool/mohair	0	0	0	100%	105%	125%	105%	0	0
Cattle sales	0	0	0	100%	113%	125%	113%	0	0
Goat sale	0	0	0	100%	111%	125%	111%	0	0
Sheep sales	0	0	0	100%	116%	125%	116%	0	0
Maize sales	0	0	0	60%	120%	125%	72%	0	0
Sorghum sales	0	240	240	70%	100%	125%	70%	168	168
Beans sales	0	0	0	50%	100%	125%	50%	0	0
Ag.labour	834	0	834	80%	105%	125%	84%	701	701
Construction labour	180	27	207	100%	105%	125%	105%	217	217
Domestic labour	150	0	150	100%	105%	125%	105%	158	158
Remittances	420	0	420	100%	105%	125%	105%	441	441
Self-employment	500	0	500	100%	105%	125%	105%	525	525
	0	0	0	100%	100%	125%	100%	0	0
	0	0	0	100%	100%	125%	100%	0	0
	0	0	0	100%	100%	125%	100%	0	0
	0	0	0	100%	100%	125%	100%	0	0
	0	0	0	100%	100%	125%	100%	0	0
	0	0	0	100%	100%	125%	100%	0	0
	0	0	0	100%	100%	125%	100%	0	0
	0	0	0	100%	100%	125%	100%	0	0
	0	0	0	100%	100%	125%	100%	0	0
	0	0	0	100%	100%	125%	100%	0	0
total:	2,084	267	2,351					2,209	2,209
Expenditure : Very Poor HHs									
	Baseline Expend			Problem %norm	Comm. Price		Con.prob %norm	Max.curr Expend	Curr. Expend
Cash									
min.non-staple	213			100%	105%		105%	224	224
essential	452			100%	105%		105%	0	0
staple	816							1,986	1,986
other	603							0	0
total:	2,084							2,209	2,209
exp. deficit								475	475
Cost of staple name of staple	maize								
kg pppd	0.58								
HH size	6								
cost per kg	2.00								
cost of staple	2,534						125%	3,167	

Mountains LZ									
BASELINE ACCESS				PROBLEM SPECIFICATION			RESPONSE		
Sources of Food : Very Poor HHs									
	Baseline Access	Expand -ability	Max. Access	Problem %norm	Food Intake kcals/day		Con.prob %norm	Max.curr Access	Curr. 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:		100%	0%	0%
Maize	10%	0%	10%	60%	2100		60%	6%	6%
Sorghum	0%	0%	0%	70%			70%	0%	0%
Wheat	0%	0%	0%	100%			100%	0%	0%
Beans	1%	0%	1%	50%			50%	0%	0%
Peas	0%	0%	0%	100%			100%	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%	100%			100%	7%	7%
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 staple	2%	0%	1%	100%			100%	1%	1%
Purchase - staple	22%	0%	46%	100%			100%	37%	37%
food deficit total	97%	0%	121%					83%	17%
								adj.fact =	3.93
Income : Very Poor HHs									
	Baseline Access	Expand -ability	Max. Access	Problem %norm	Comm. Price	Staple Price	Con.prob %norm	Max.curr Access	Curr. Access
Cash									
Cows' milk sales - wet	0	0	0	100%	100%	120%	100%	0	0
Wool/mohair	0	0	0	100%	105%	120%	105%	0	0
Cattle sales	0	0	0	100%	112%	120%	112%	0	0
Goat sales	0	0	0	100%	115%	120%	115%	0	0
Sheep sales	0	0	0	100%	113%	120%	113%	0	0
Chicken sales	50	0	50	100%	105%	120%	105%	53	53
Maize sales	0	0	0	60%	120%	120%	72%	0	0
Sorghum sales	0	0	0	70%	102%	120%	71%	0	0
Wheat sales	0	0	0	100%	105%	120%	105%	0	0
Beans sales	160	0	160	50%	100%	120%	50%	80	80
Pea sales	0	0	0	100%	100%	120%	100%	0	0
Potatoes sales	0	0	0	100%	100%	120%	100%	0	0
Vegetables sales	90	0	90	80%	100%	120%	80%	72	72
Ag. Labour	0	0	0	80%	105%	120%	84%	0	0
Construction labour	340	51	391	100%	105%	120%	105%	411	411
Domestic labour	614	74	688	100%	105%	120%	105%	723	723
Employment (and/or pension)	0	0	0	100%	105%	120%	105%	0	0
Self-employment	240	0	240	100%	105%	120%	105%	252	252
	0	0	0	100%	100%	120%	100%	0	0
	0	0	0	100%	100%	120%	100%	0	0
	0	0	0	100%	100%	120%	100%	0	0
	0	0	0	100%	100%	120%	100%	0	0
	0	0	0	100%	100%	120%	100%	0	0
total:	1,494	125	1,619					1,590	1,590
Expenditure : Very Poor HHs									
	Baseline Expend			Problem %norm	Comm. Price		Con.prob %norm	Max.curr Expend	Curr. Expend
Cash									
min.non-staple	248			100%	105%		105%	260	260
essential	379			100%	105%		105%	0	0
staple	640							1,329	1,329
other	227							0	0
total:	1,494							1,590	1,590
exp. deficit								398	398
Cost of staple									
name of staple	maize								
kg pppd	0.58								
HH size	7								
cost per kg	2.00								
cost of staple	2,956						120%	3,547	

Peri Urban LZ

BASELINE ACCESS

Sources of Food : Poor HHs

PROBLEM SPECIFICATION

RESPONSE

	Baseline Access	Expand -ability	Max. Access	Problem %norm	Food Intake kcals/day	Con.prob %norm	Max.curr Access	Curr. Access
Cows' milk - wet	0%	0%	0%	100%	baseline: 2100	100%	0%	0%
Own meat	0%	0%	0%	100%	for analysis: 2100	100%	0%	0%
Green cons maize	4%	0%	4%	65%		65%	2%	2%
Maize	11%	0%	11%	65%		65%	7%	7%
Sorghum	7%	-7%	0%	70%		70%	0%	0%
Beans	2%	0%	2%	50%		50%	1%	1%
Pumpkin	0%	0%	0%	80%		80%	0%	0%
Vegetables 1	0%	0%	0%	80%		80%	0%	0%
Vegetables 2	0%	0%	0%	80%		80%	0%	0%
Labour: weeding	7%	0%	7%	60%		60%	4%	4%
Labour: harvesting	5%	0%	5%	60%		60%	3%	3%
Labour: construction, domestic, other	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%	65%	65%
food deficit total	99%	-7%	135%				96%	4%

adj.fact = 1.83

Income : Poor HHs

	Baseline Access	Expand -ability	Max. Access	Problem %norm	Comm. Price	Staple Price	Con.prob %norm	Max.curr Access	Curr. Access
Cash									
Cattle sales	0	0	0	100%	110%	120%	110%	0	0
Pig sales	0	0	0	100%	110%	120%	110%	0	0
Sheep sales	0	0	0	100%	115%	120%	115%	0	0
Maize sales	0	0	0	65%	120%	120%	78%	0	0
Sorghum sales	0	250	250	70%	106%	120%	74%	186	186
Beans sales	0	0	0	50%	100%	120%	50%	0	0
Vegetable sales 1	140	0	140	80%	100%	120%	80%	112	112
Vegetable sales 2	60	0	60	80%	100%	120%	80%	48	48
Ag. Labour	225	0	225	60%	105%	120%	63%	142	142
Construction labour	150	23	173	100%	105%	120%	105%	181	181
Domestic labour	450	20	470	100%	105%	120%	105%	493	493
Employment (and/or pension)	0	0	0	100%	105%	120%	105%	0	0
Remittances	120	0	120	100%	105%	120%	105%	126	126
Self-employment	720	0	720	100%	105%	120%	105%	756	756
Petty trade	375	0	375	100%	105%	120%	105%	394	394
Gifts / social support	150	0	150	100%	105%	120%	105%	158	158
	0	0	0	100%	100%	120%	100%	0	0
	0	0	0	100%	100%	120%	100%	0	0
	0	0	0	100%	100%	120%	100%	0	0
	0	0	0	100%	100%	120%	100%	0	0
	0	0	0	100%	100%	120%	100%	0	0
	0	0	0	100%	100%	120%	100%	0	0
total:	2,390	292	2,682					2,595	2,595

Expenditure : Poor HHs

	Baseline Expend	Problem %norm	Comm. Price	Con.prob %norm	Max.curr Expend	Curr. Expend
Cash						
min.non-staple	284	100%	105%	105%	298	298
essential	378	100%	105%	105%	0	0
staple	1,103				2,296	2,296
other	626				0	0
total:	2,390				2,595	2,595
exp. deficit					396	396
Cost of staple						
name of staple	maize					
kg pppd	0.58					
HH size	7					
cost per kg	2.00					
cost of staple	2,956			120%	3,547	

Peri Urban LZ									
BASELINE ACCESS				PROBLEM SPECIFICATION			RESPONSE		
Sources of Food : Very Poor HHs									
	Baseline Access	Expand -ability	Max. Access	Problem %norm	Food Intake kcals/day		Con.prob %norm	Max.curr Access	Curr. Access
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%	65%	for analysis:		65%	3%	3%
Maize	7%	0%	7%	65%	2100		65%	4%	4%
Sorghum	2%	-2%	0%	70%			70%	0%	0%
Beans	0%	0%	0%	50%			50%	0%	0%
Pumpkin	0%	0%	0%	80%			80%	0%	0%
Vegetables 1	0%	0%	0%	80%			80%	0%	0%
Vegetables 2	0%	0%	0%	80%			80%	0%	0%
Labour: weeding	10%	0%	10%	60%			60%	6%	6%
Labour: harvesting	5%	0%	5%	60%			60%	3%	3%
Labour: construction, domestic, other	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%	25%	25%
food deficit total	98%	-1%	110%					52%	48%
								adj.fact =	363.28
Income : Very Poor HHs									
	Baseline Access	Expand -ability	Max. Access	Problem %norm	Comm. Price	Staple Price	Con.prob %norm	Max.curr Access	Curr. Access
Cash									
Cattle sales	0	0	0	100%	110%	120%	110%	0	0
Pig sales	0	0	0	100%	110%	120%	110%	0	0
Sheep sales	0	0	0	100%	115%	120%	115%	0	0
Maize sales	0	0	0	65%	120%	120%	78%	0	0
Sorghum sales	0	70	70	70%	106%	120%	74%	52	52
Beans sales	0	0	0	50%	100%	120%	50%	0	0
Vegetable sales 1	245	0	245	80%	100%	120%	80%	196	196
Vegetable sales 2	120	0	120	80%	100%	120%	80%	96	96
Ag. Labour	450	0	450	60%	105%	120%	63%	284	284
Construction labour	100	15	115	100%	105%	120%	105%	121	121
Domestic labour	91	14	105	100%	105%	120%	105%	110	110
Employment (and/or pension)	0	0	0	100%	105%	120%	105%	0	0
Remittances	50	0	50	100%	105%	120%	105%	53	53
Self-employment	180	0	180	100%	105%	120%	105%	189	189
Petty trade	0	0	0	100%	105%	120%	105%	0	0
Gifts / social support	75	0	75	100%	105%	120%	105%	79	79
	0	0	0	100%	100%	120%	100%	0	0
	0	0	0	100%	100%	120%	100%	0	0
	0	0	0	100%	100%	120%	100%	0	0
	0	0	0	100%	100%	120%	100%	0	0
	0	0	0	100%	100%	120%	100%	0	0
	0	0	0	100%	100%	120%	100%	0	0
total:	1,311	99	1,410					1,178	1,178
Expenditure : Very Poor HHs									
	Baseline Expend			Problem %norm	Comm. Price		Con.prob %norm	Max.curr Expend	Curr. Expend
Cash									
min.non-staple	284			100%	105%		105%	298	298
essential	378			100%	105%		105%	0	0
staple	720							880	880
other	-70							0	0
total:	1,311							1,178	1,178
exp. deficit								396	396
Cost of staple									
name of staple	maize								
kg pppd	0.58								
HH size	7								
cost per kg	2.00								
cost of staple	2,956						120%	3,547	

Southern Lowland LZ

BASELINE ACCESS			PROBLEM SPECIFICATION				RESPONSE			
Sources of Food : Very Poor HHs										
	Baseline Access	Expand -ability	Max. Access	Problem %norm	Food Intake kcals/day	Con.prob %norm	Max.curr Access	Curr. Access		
Cows' milk - wet	0%	0%	0%	100%	baseline:	100%	0%	0%		
Own meat	0%	0%	0%	100%	2100	100%	0%	0%		
Green cons maize	3%	0%	3%	70%	for analysis:	70%	2%	2%		
Maize	11%	0%	11%	70%	2100	70%	8%	8%		
Sorghum	4%	-4%	0%	70%		70%	0%	0%		
Beans	2%	0%	2%	50%		50%	1%	1%		
Labour: weeding	15%	0%	15%	70%		70%	11%	11%		
Labour: other	3%	0%	3%	100%		100%	3%	3%		
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%		
	0%	0%	0%	100%		100%	0%	0%		
	0%	0%	0%	100%		100%	0%	0%		
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%	53%	53%		
food deficit total								8%		
	93%	-5%	132%				92%			
							adj.fact =	2.39		
Income : Very Poor HHs										
	Baseline Access	Expand -ability	Max. Access	Problem %norm	Comm. Price	Staple Price	Con.prob %norm	Max.curr Access	Curr. Access	
Cash	0	0	0	100%	113%	125%	113%	0	0	
Cattle sales	0	0	0	100%	100%	125%	100%	0	0	
Goat sales	0	0	0	100%	116%	125%	116%	0	0	
Sheep sales	0	120	120	70%	105%	125%	74%	88	88	
Sorghum sales	0	0	0	50%	100%	125%	50%	0	0	
Beans sales	300	0	300	70%	105%	125%	74%	221	221	
Ag. Labour	150	23	173	100%	105%	125%	105%	181	181	
Construction labour	240	36	276	100%	105%	125%	105%	290	290	
Domestic labour										
Employment and pension	0	0	0	100%	105%	125%	105%	0	0	
Remittances	300	0	300	100%	105%	125%	105%	315	315	
Self-employment	480	0	480	100%	105%	125%	105%	504	504	
Petty trade	0	0	0	100%	105%	125%	105%	0	0	
	0	0	0	100%	100%	125%	100%	0	0	
	0	0	0	100%	100%	125%	100%	0	0	
	0	0	0	100%	100%	125%	100%	0	0	
	0	0	0	100%	100%	125%	100%	0	0	
	0	0	0	100%	100%	125%	100%	0	0	
	0	0	0	100%	100%	125%	100%	0	0	
	0	0	0	100%	100%	125%	100%	0	0	
	0	0	0	100%	100%	125%	100%	0	0	
	0	0	0	100%	100%	125%	100%	0	0	
	0	0	0	100%	100%	125%	100%	0	0	
total:	1,470	179	1,649					1,599	1,599	
Expenditure : Very Poor HHs										
	Baseline Expend			Problem %norm	Comm. Price		Con.prob %norm	Max.curr Expend	Curr. Expend	
Cash	178			100%	105%		105%	187	187	
min.non-staple essential	363			100%	105%		105%	0	0	
staple other	540							1,412	1,412	
total:	389							1,599	1,599	
exp. deficit	1,470							381	381	
Cost of staple										
name of staple	maize									
kg pppd	0.58									
HH size	5									
cost per kg	2.00									
cost of staple	2,112						125%	2,639		

Senqu River Valley LZ

BASELINE ACCESS				PROBLEM SPECIFICATION			RESPONSE		
Sources of Food : Very Poor HHs									
	Baseline Access	Expand -ability	Max. Access	Problem %norm	Food Intake kcals/day	Con.prob %norm	Max.curr Access	Curr. Access	
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%	65%	2100	65%	3%	3%	
Sorghum	6%	-6%	0%	80%		80%	0%	0%	
Beans	1%	0%	1%	50%		50%	1%	1%	
Vegetables	1%	0%	1%	80%		80%	0%	0%	
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%	
	0%	0%	0%	100%		100%	0%	0%	
	0%	0%	0%	100%		100%	0%	0%	
	0%	0%	0%	100%		100%	0%	0%	
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%	67%	67%	
food deficit total	95%	-8%	151%				93%	7%	
							adj. fact =	1.69	
Income : Very Poor HHs									
	Baseline Access	Expand -ability	Max. Access	Problem %norm	Comm. Price	Staple Price	Con.prob %norm	Max.curr Access	Curr. Access
Cash	0	0	0	100%	105%	125%	105%	0	0
Wool/mohair	0	0	0	100%	107%	125%	107%	0	0
Cattle sales	0	0	0	100%	119%	125%	119%	0	0
Piglet sales	0	0	0	100%	125%	125%	125%	0	0
Goat sales	0	0	0	100%	119%	125%	119%	0	0
Pig sales	0	0	0	100%	110%	125%	110%	0	0
Sheep sales	0	0	0	100%	105%	125%	105%	0	0
Chicken sales	0	244	244	80%	106%	125%	85%	207	207
Sorghum sales	0	0	0	50%	100%	125%	50%	0	0
Beans sales	450	0	450	80%	105%	125%	84%	378	378
Ag. Labour	400	60	460	100%	105%	125%	105%	483	483
Construction labour	320	0	320	100%	105%	125%	105%	336	336
Domestic labour	0	0	0	100%	105%	125%	105%	0	0
Employment/Pension	200	0	200	100%	105%	125%	105%	210	210
Remittances	320	0	320	100%	105%	125%	105%	336	336
Self-employment	0	0	0	100%	105%	125%	105%	0	0
Petty trade	0	0	0	100%	100%	125%	100%	0	0
	0	0	0	100%	100%	125%	100%	0	0
	0	0	0	100%	100%	125%	100%	0	0
	0	0	0	100%	100%	125%	100%	0	0
	0	0	0	100%	100%	125%	100%	0	0
	0	0	0	100%	100%	125%	100%	0	0
total:	1,690	304	1,994					1,950	1,950
Expenditure : Very Poor HHs									
	Baseline Expend			Problem %norm	Comm. Price		Con.prob %norm	Max.curr Expend	Curr. Expend
Cash	178			100%	105%		105%	187	187
min.non-staple essential	342			100%	105%		105%	0	0
staple	462							1,763	1,763
other	708							0	0
total:	1,690							1,950	1,950
exp. deficit								359	359
Cost of staple									
name of staple	maize								
kg pppd	0.58								
HH size	5								
cost per kg	2.00								
cost of staple	2,112						125%	2,639	