

Lesotho Vulnerability Assessment Committee (LVAC)

Livelihood Vulnerability Assessment Report
May 2004

Highlights

The Peri-Urban Livelihood Areas
Pop 118,000

100 % of the population is expected to experience a 9-27% income/food deficit

The Northern Lowlands - Pop 435,000

70-80% of the population is affected with a 2-7% deficit.

The Foothills
Pop 346,000

80-100% of the population is affected with an income/food deficit of 8-26% of annual food needs.

The Southern Lowlands
Pop 273,000

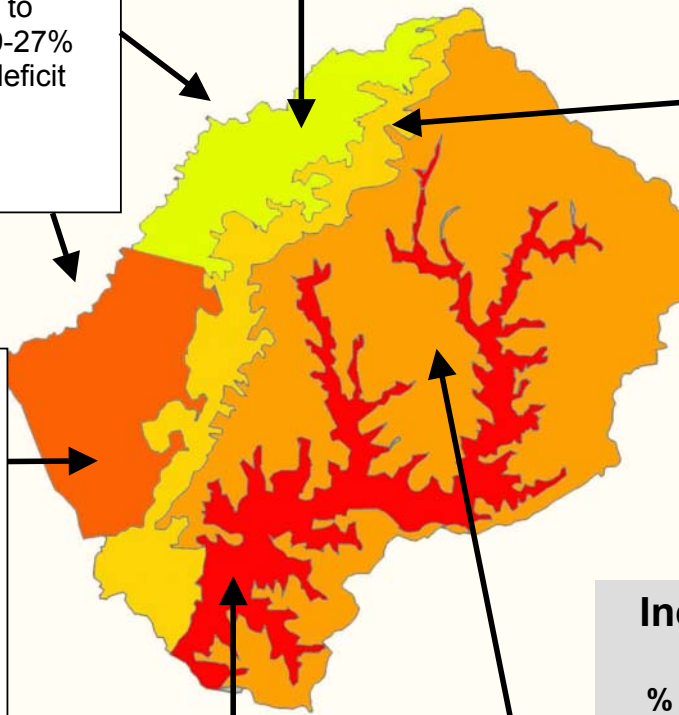
100% of the population is affected by an income/food deficit of 12-13% of annual food needs.

Sengu River Valley
Pop 346,000

100% of the population is affected by an income/food deficit of 19-42% of their annual food needs.

The Mountains
Pop 290,000

80-100% of the population has an estimated income/food deficit of 13-18% income/food deficit.



Income/Food Deficit
% Annual Needs

NB: Food/Income deficit is calculated on 400gms cereals/person/day.

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Acknowledgements

As has been the practice in the last three years, Lesotho Vulnerability Assessment Committee (LVAC) carried out the livelihoods vulnerability assessment in April/ May 2004. The assessment built on the livelihoods profiling work done by LVAC in April 2003 and involved representatives from several Government Ministries, UN agencies and NGOS.

The entire process from training, field work, analysis and report writing has taken six weeks. The training programme was aimed at the immediate as well as the long term capacity strengthening and skills transfer.

The assessment was funded by DFID through the SADC Regional Vulnerability Assessment Committee (RVAC) and WFP and we would like to extend our sincere appreciation for this support. The SADC – RVAC in addition, provided Technical support during the analysis process.

As part of the thrust in building consensus on livelihoods issues in Lesotho, a consultative meeting for Assessment team members and other stakeholders was held in May to discuss the initial findings. The views of the stakeholders have been incorporated in this report. Thank you all who actively participated and contributed to the discussions of the day.

Special thanks go to the DMA, FNCO and Lesotho Meteorological Services who provided transport for the entire field exercise.

Last but not least, we would like to extend our special appreciation to the men and women in the sixty villages who put aside all other activities to discuss with the team members. We hope their views and suggestions are well represented in this report

'Mapalesa Mothokho
Chair, LVAC
June 2004.

Acronyms

AIDS	:	Acquired Immuno-Deficiency Syndrome
BOS	:	Bureau of Statistics
CFSAM	:	Crop & Food Supply Assessment Mission
DFID	:	Department for International Development
DMA	:	Disaster Management Authority
DPPA	:	Department of Planning & Policy Analysis
EMOP	:	Emergency Operations
FANR	:	Food, Agriculture & Natural Resources
FNCO	:	Food and Nutrition Coordinating Office
FAO	:	Food and Agriculture Organization
GOL	:	Government of Lesotho
HH	:	Households
HIV	:	Human Immuno-Deficiency Virus
Kcal	:	Kilo Calories
LV	:	Livelihood Zone
LVAC	:	Lesotho Vulnerability Assessment Committee
KG	:	Kilogrammes
MML	:	Maize meal
MOAF	:	Ministry of Agriculture & Food Security
MOHSW	:	Ministry of Health & Social Welfare
MT	:	Metric tonnes
NEWU	:	National Early Warning Unit
NGO	:	Non-government organization
NVAC	:	National Vulnerability Assessment Committee
RVAC	:	Regional Vulnerability Assessment Committee
SADC	:	Southern African Development Community
SEG	:	Socio-Economic Groups
UNAIDS	:	Joint United Nations Programme on HIV/AIDS
UNICEF	:	United Nations Children's Fund
VAC	:	Vulnerability Assessment Committee
WFP	:	World Food Programme

Executive Summary

Context and Current situation

Lesotho has experienced over three years of erratic weather patterns and this has culminated in the declaration, by Government of Lesotho, of a state of emergency in April 2002 and most recently in February 2004. The structural context constraining livelihood options remain little changed over the past four years. Depressed employment opportunities, poor agricultural production, plus rising staple food prices in the rural areas and the effects of HIV/AIDS have continued to undermine rural livelihoods.

In the current season late and unreliable rains in most parts of Lesotho between October and December had a serious impact on agricultural production. However, much improved rains between January and March fall did allow households to plant in January although this was generally too late for planting maize. Most households especially in the lowlands took advantage of the late rains to plant more vegetables but the negative effect was that households haven't been able to secure markets for the high volume of vegetables produced. The prospects of regional maize shortages have been an area of concern for Lesotho where maize imports constitute 60% of the annual cereal requirement. Crop production forecasts (by BOS) for this season suggests considerably low production in most districts in the range of 3 – 55% of the long term average production for eight Districts. The overall average production for Lesotho is estimated at 60% of the long term (13yr average)

Consumer maize meal prices in the rural areas increase by 5 – 25% in most of the livelihood zones with the exception of the mountains where no net increase was assessed. This has been a major shock for rural households whose food access is largely dependent on purchases of staple.

Several factors affecting the vulnerability of Basotho underlie the current crisis situation. Household incomes have been severely affected since the mid 1990s with a significant fall-off of Basotho employed in South Africa as the decade progressed. The reduction of incomes and remittances in Lesotho has had significant implications for the ability of many households and communities to purchase food and other essential household items and access basic social services. In addition, the reduced disposable income of families has resulted in fewer casual employment opportunities being offered for less well-off members in the communities. Livestock conditions has been poor for several years and overall numbers have been declining because of poor grazing conditions and water availability and animals have had very little chance to recover their condition after each shock has hit.

The high HIV/AIDS prevalence in Lesotho has increased morbidity and mortality rates, vastly reducing the viability of already weakened livelihood strategies entrenching poverty. Orphan numbers and other chronically vulnerable households are growing at a significant rate contributing to the growing levels of livelihood failure of many poorer groups throughout the country with an increasing inability of communities to cope.

LVAC estimates of the vulnerable households in need of support, suggests long term vulnerability and failing livelihoods. The current situation is a function of high levels of chronic poverty, the cumulative effect of several years of depressed production and income and the net inflation in the price of maize especially in the rural markets.

Purpose and approach adopted in this assessment.

The report uses livelihood baseline data collected in the April-May 2003 assessment, in combination with recent monitoring information. It presents assessments of the severity/magnitude of various hazards on livelihoods and makes projections of food access for six livelihood zones in the country - taking into account likely local coping strategies.

The assessment focused on hazard/shock monitoring. The approach utilised, therefore included extensive consultations with the communities, other stakeholders and the analysis of secondary information available at the national and livelihood zone level.

The key elements of the assessment process have been;

Analysis of secondary data on production and supply e.g. maize, sorghum and wheat production, livestock productivity and condition, national food and livestock prices, employment levels and the general economic climate of Lesotho.

Participatory Community Key Informant interviews by combined teams from the Government, UN and NGOs in 60 villages (10 villages per livelihood zone) to identify;

- current production shocks (food/cash crop production, livestock productivity, fishing, trade, non-food production, livestock/grazing condition)
- changes in access to markets (employment, cash crops, livestock, trade, non-food production, food availability)
- changes in prices of food stuffs and livestock

Analysis of the field level information in combination with other secondary data analysis and consultations with stakeholders before a final problem specification was produced to reflect a common understanding of the vulnerability context in Lesotho. The LVAC also benefited from consultations with the FAO/WFP Crop and Food Supply Assessment Mission (CFSAM) and made some adjustments to the problem specification in the light of information presented by the team and the offices of World Food Programme.

Conclusions and recommendations

- The current situation in Lesotho cannot be characterised as an emergency though most rural populations will face Food/Income deficits and appropriate interventions will be necessary. However, interventions need to go beyond food aid because responses with only food aid will be inappropriate, create a potential for the disruption of local food markets and most importantly not address the fundamental problem of declining incomes and increasing vulnerability.
- The analysis has factored in possible options for households to cope with the current problem. These coping strategies include additional sale of livestock and seeking additional employment. From a livelihoods perspective it is imperative to monitor applications of such coping mechanisms and the potential depletion of assets as households try to cope with the various shocks.

- There is need for policies and programmes that address issues of poverty and vulnerability not just agricultural production and food aid. If not, there is a danger that peoples' 'normal' lives could be viewed as a long protracted disaster, yet we know that producing about 30% of the food needed to feed the entire population is normal in Lesotho.
- Key National information systems are still weak and timing of information provision is problematic. Analysis of the collected data is inadequate for example the food price data collected by the Marketing Department in the Ministry of Trade Industry and Marketing is not analysed to show trends and this limits use of such information. Critical reports such as the National Cereal Balance Sheet and the national food security situation are produced late and this affects the quality of analysis. There is urgent need for improvements in our information systems especially in terms of timing and analysis.
- Little information is available on the nutritional status of children in the most affected areas. However, given the declining food security status and the high prevalence of HIV/AIDS, it is clear that there is a likelihood of deterioration in child nutrition nationally in the long term. It is recommended that the national nutritional surveillance system be rolled out to cover the entire Country and feed into livelihood monitoring systems.
- There is a need for appropriate Government Ministries to audit actual responses against initial early warning assessments. This will help in lesson learning and eventual improvements in our early warning systems.
- Analysis of food security by administrative units misses an important factor of attempting to understand how the different social economic groups are affected by shocks and thus inform design of appropriated interventions. There is need to establish a food security database that presents information by livelihood zone and social economic group.

1. Introduction and Context

Adverse weather conditions in 2003-04 have again affected Lesotho.¹ This year's agricultural season can only aggravate the current situation for approximately 1.8 million rural inhabitants as two years of 'poor' production and 'crop failure' in many locations has been followed by yet another 'poor' agricultural season. In the light of the severe and long dry period in the first half of the summer 2003-04, the Government of Lesotho declared a state of national disaster in February 2004.²

The latest district maize production forecasts for 2003-04 (compared to the 13-year mean 1989-90 to 2001-02) are now expected to be as little as 3% in Qacha's Nek 18% in Quthing, 21% in Mokhotlong and 31% in Mohale's Hoek. The anticipated national production of 65,603 MT of maize production is equivalent to about 60% of the long-term mean of 109,926 MT (See Appendix 1). Maize production in 2003-04 is therefore expected to be 45,000 MT below the average. The Simulation results presented below estimate an overall income/food deficit in the range of 29,786 to 50,453 MT.

While meteorological data indicates that most of country had received 70-85% of normal rainfall by the end of April 2004 it was well below average during the first half of the summer rains - September to December. This below average and poor distribution of rain has severely affected production of crops and pasture. However the extremely harsh assumptions underlying the 'disaster' forecast issued in February 2004 by the Inter-Agency and Multi-Stakeholder (IAMS) snapshot and as elaborated by LVAC March 2004 Monitoring Report have been considerably revised³ given the (May 2004) release by Bureau of Statistics (BOS) of maize and sorghum production forecast for the 2003-04 season.⁴ Nonetheless, this upwardly revised maize and sorghum production forecast is 40% below the long-term mean and represents a considerable shortfall in domestic cereal availability for the consumption period 2004-05 and a high level of crop 'failure' in Qacha's Nek, Quthing, Mokhotlong and Mohale's Hoek.

The poor rainfall during the first half of the summer rains September to December also resulted in poor grazing conditions at that time. Insufficient forage for livestock resulted in significant numbers of livestock losses – especially through birthing difficulties. The situation for livestock improved significantly after good rains in February to April. Analyses of marketing surveys suggest that the role of livestock and livestock products in livelihoods appears to have been in a significant decline since 2000-01.

Most rural households in Lesotho access their food primarily through own production and purchases. National production normally represents approximately 30% of total needs. The balance of the food requirement is imported. Household purchasing

¹ See: SADC Special Agromet Updates - Analysis (& further analysis) of a Developing Drought Situation in Southern Africa 2003/2004 January & February Reports.

² The Government of Lesotho called on international partners to assist 600,000 people who were estimated to need food assistance till the harvest of 2005.

³ In an attempt to measure the impact of the various shocks including low crop production, depressed employment markets and increases in prices of staple foods on livelihoods, the LVAC analysis made use of existing early-warning information: area estimates from the BOS, price data from the Department of Marketing, nutrition surveillance reports and its livelihood baseline profiles to predict the likely scenarios and implications for livelihoods. Using the figures from IAMS rapid assessment, the LVAC predicted major deficits in total food and income and access. The main reason for the large food/income deficits were a combination of the very low preliminary estimates of area planted to maize and the pessimistic yield estimates from District Agricultural Offices as reported to the IAMS assessment team.

⁴ The Bureau of statistics conducted a nation wide crop forecasting exercise between April – May 2004. The BOS estimates of areas under cultivation in February 2004) have been withdrawn and have been replaced with the latest crop assessment figures.

capacity therefore plays a significant role in determining the food security situation of the country. However, price inflation in 2003-04 has eroded purchasing power of households that access some or all of their maize meal via purchases. The April-May 2004 LVAC field assessments suggest (depending upon location) that consumers in rural areas may have faced a 5-25% increase in maize meal prices 2003-04. The one exception is the Mountains, whereby the high prices that came about in 2002-03 have resulted in a 'no change' situation in 2003-04.

LVAC recognizes that some of the production declines measured in previous and the current assessment must be attributable to the effects of the HIV/AIDS epidemic. The scale of HIV/AIDS epidemic is a major factor undermining agricultural prosperity in Lesotho. Almost one-third of the adult population is living with HIV. From case study evidence and emerging regional survey findings, it is clear that increasing rates of morbidity and mortality are exacting a huge toll on the ability of households to produce food and earn income⁵ while at the same time increase household expenditure on health and related costs. Children are particularly affected by HIV/AIDS with an increasing number of orphans. Given over extended kinship networks, the emergence of 'very vulnerable' child-headed households is a disturbing trend. The exact extent to which HIV/AIDS is increasingly contributing to domestic food production 'failure' on a yearly basis is much more difficult to assess. It is assumed that increasing HIV/AIDS related morbidity, deaths, loss of assets and knowledge, is lowering productivity in agriculture. Another dimension to the HIV/AIDS epidemic is the likely erosion of Government and private service capacity to respond to the problems of HIV/AIDS - given the impact of the epidemic within the sector.

The effects of the epidemic and both the recent and current drought are overlaid on a long history of poverty. The high level of poverty in Lesotho is characterised by an alarming level of destitution. It is likely that the levels of vulnerability in these groups have considerably worsened given three years of depressed food production and failing livelihoods.

Lesotho continues to be immersed in an ongoing crisis of severe food insecurity and failing Livelihoods. There are a number of factors which contribute to the crisis: depressed employment opportunities, volatile food production- related to erratic weather patterns, reduced purchasing power, reduced flows of remittances from South Africa and the devastating effects of the HIV/AIDS pandemic.

2 Institutional Background.

The Lesotho VAC falls under the Disaster Management Authority of the Prime Minister's Office. The LVAC is mandated to provide information on vulnerable populations and provide recommendations to, for example the Ministry of Agriculture and Food Security, Ministry of Finance and Development Planning, the Ministry of Health and Social Welfare, international partners and local NGO's, on the appropriate responses.

The VAC process is coordinated at regional level by the Southern Africa Development Community (SADC) Food, Agriculture and Natural Resources (FANR) Directorates' Regional Vulnerability Assessment Committee (RVAC) in collaboration with international partners (WFP, FAO, FEWSNET and SC (UK). The Lesotho VAC is part of this regional vulnerability assessment system initiated by FANR Ministers to

⁵ Households with a chronically ill member have average reductions in annual income of 30-35% - See D. Webb, and G. Mutangadura, 'The socio-economic Impact of Adult Morbidity and Mortality in Households in Kafue District Zambia,' SAFAIDS, 1999.

improve vulnerability monitoring and broaden early warning systems within member countries.

Broadly the aim of LVAC is to incorporate a deeper understanding of livelihoods in emergency and development programming and broaden early warning systems. Since 2002, the LVAC has conducted 3 rolling assessments with the first two focusing on emergency food needs that assisted in the targeting of food aid responses in rural areas. Specific recommendations by LVAC have included the establishment of nutrition surveillance systems in areas found to be more food insecure (this has been done with support from UNICEF).

The emergency assessment process has largely increased the relevance and visibility of LVAC as a key stakeholder in food security analysis in the country. After initial focus on emergency food needs, it became increasingly clear that responses to food crises need to go beyond short – term food aid needs to longer term livelihoods interventions.

By May 2003, LVAC shifted its focus away from emergency food needs assessments to Livelihood Based Vulnerability Assessment (LBVA) and analysis. In April/May 2003, the LVAC undertook an intensive exercise of updating 6 livelihood baselines, analysis of the current year food security situation, and training of 18 LVAC members in all stages of the LBVA assessment and analysis. The LVAC has plans to establish a livelihoods database and analytical software for ongoing livelihood vulnerability monitoring and assessment. The Livelihood Based Vulnerability Approach adopted by the LVAC is designed not only for early warning and emergency operations, but is a powerful tool that can be used to inform development programming and policy. This will enable the LVAC to generate information and analysis that provides a foundation for better understanding of the dynamics of change and vulnerability within households as well as feed into the national poverty monitoring system.

3 Analytical Framework & Approach

The current report uses livelihood baseline data⁶ collected in the April-May 2003 assessment, in combination with recent monitoring information⁷. It presents assessments of the severity/magnitude of various hazards on livelihoods and makes projections of food access for six livelihood zones in the country - taking into account likely local coping strategies.

The basic principle underlying the livelihoods based approach is that an analysis of local livelihoods is essential for a proper understanding of the impact of hazards at household level. Serious crop failure may, for example, leave one group of households destitute because the failed crop is their only source of staple food. Another group (in a nearby location) may be able to cope with these crop production problems because they have alternative food and income sources that can make up the current production shortfall. For example, they may have livestock to sell or have the ability to gain local paid employment. Livelihood baseline information captures essential facts on local livelihoods and coping strategies.⁸ Used in combination with

⁶ These baselines are presented in the Lesotho Livelihoods-Based Vulnerability Assessment (LVBA) April May 2003.

⁷ Maize production figures come from a combination of the BOS crop forecasts and the food security situation report 2000/2001 and 2001/2002 by MOAFS and BOS.

⁸ The way in which households normally cope when faced with adverse conditions that do not deplete the socio-economic basis of the households e.g. sale of productive livestock (termed survival strategies).

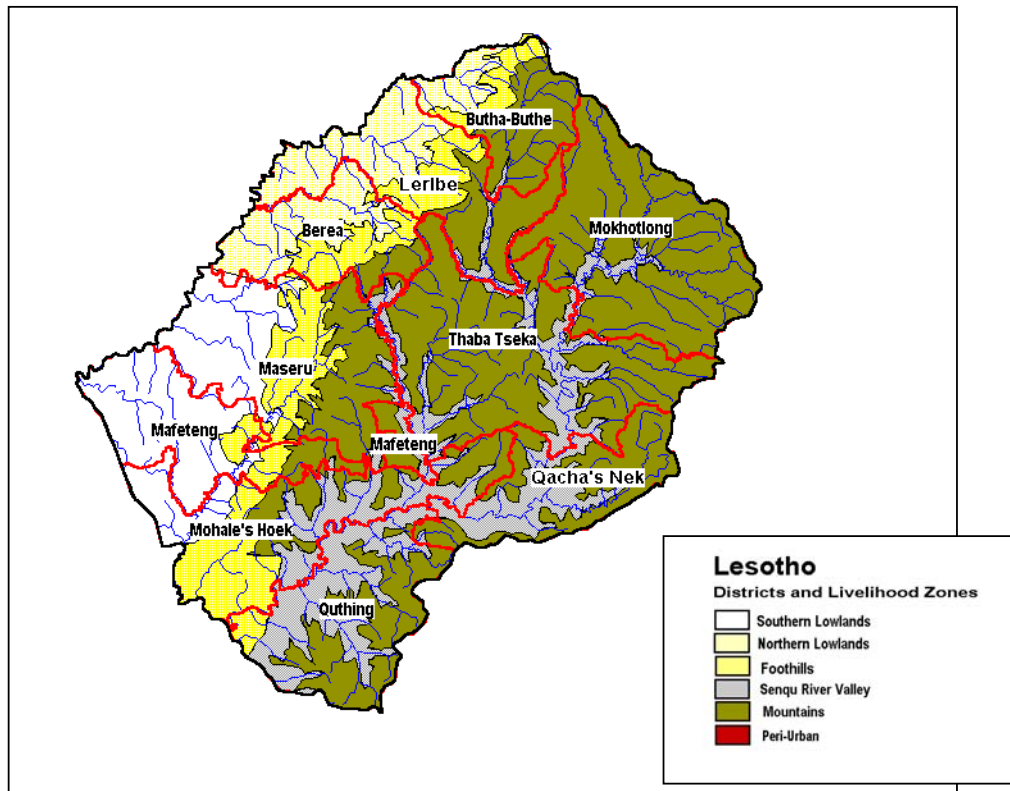
current hazard information it is possible to analyse relative vulnerability broken down by area and by socio-economic status within livelihood zones.

Livelihood patterns clearly vary from one area to another, according to local factors such as climate, soil, access to markets etc. The first step in a livelihoods based vulnerability analysis is therefore to prepare a livelihood zone map, i.e. a map delineating geographical areas within which people share similar patterns of access to food (i.e. they grow the same crops, keep the same types of livestock, etc.), income and have the same access to markets.

3.1 Livelihood zones

Lesotho is largely a mountainous country surrounded entirely by South Africa. It is divided into four agro-ecological Zones - Lowlands, Foothills, Mountains, and the Senqu River Valley. Lesotho's semi arid climate faces severe weather variability characterised by drought, heavy rainfalls, frosts, snow and hailstorms. Due to acute shortage of arable land, the mountainous terrain, overgrazing, population pressure, soil erosion and declining fertility, national crop production has been steadily declining. Maize yields have fallen from 1400 Kg per hectare, in the mid - 70's to a current 450-500Kg per hectare.

Map1.



The Livelihood zones (LZ) have been constructed to coincide with the agro ecological regions (see Map 1). The Lowlands have been further divided into two parts - the more productive Northern part and the dryer/hotter Southern section. Small pockets of peri-urban areas surrounding some of the main towns in the lowlands form a sixth Livelihood zone. Detailed summaries for each Livelihood zone are available from the LVAC.

The country is administratively divided into ten districts - Butha-Buthe, Leribe, Berea, Maseru, Mafeteng, Mohale's Hoek, Quthing, Qacha's Nek, Thaba -Tseka and Mokhotlong. The Lowlands support more than half of the national population. They monopolize 70% of the limited arable lands and provide most of the available non-agricultural employment. They are serviced by an extensive network of roads linking Maseru to the major national towns in the North and South. This road network is the gateway to South Africa. The Northern lowlands are the most agriculturally productive and experience more reliable rainfall. The Southern Lowlands are generally hotter and dryer. By contrast, the mountainous eastern side of the country is much less densely settled, arable land is scarce and communities are much more isolated from urban services and markets.

Where a household lives, is one factor determining its options for obtaining food and generating income. Another factor is wealth, since wealth determines access to the means of production and/or additional income generation. Wealth groups are typically distinguished from one another by differences in land holding, extent of cultivation, livestock holding, financial and physical capital, education, skills, labour availability and/or social capital. Defining the different wealth groups in each zone is the second step in a livelihoods analysis, the output from which is a socio-economic breakdown.

The Lesotho VAC livelihood zone map and livelihood profiles define six areas and 18 livelihood profiles ('poor', 'middle' and 'better-off' wealth groups in the: Northern Lowlands, Southern Lowlands, Foothills, Senqu River Valley, Mountains and Peri-Urban areas).

Having grouped households according to where they live and their socio-economic group (wealth), the next step is to generate livelihood baseline information for typical households in each group, for a defined reference or baseline year. Food access is determined by investigating the sum of ways households obtain food — what food they grow, gather or receive as gifts, how much food they buy, how much cash income is earned in a year, and what other essential needs must be met with income earned. Once this baseline is established, then an analysis can be made of the likely impact of a shock or hazard in a bad year. Assessments examine how food access will be affected by the shock, what other food sources can be added or expanded to make up initial shortages, and what final deficits emerge.

The objective is to investigate the effects of a hazard/shock (e.g. drought or price increase in staples) on *future* access to food and income, so that decisions can be taken about the most appropriate types of interventions. The rationale behind the approach is that a good understanding of how people have survived in the past provides a sound basis for projecting into the future. Three types of information are combined; information on normal or baseline access to food and income, information on hazards (i.e. factors affecting access to food/income, such as crop production or market prices) and information on response strategies (i.e. the sources of food and income that people turn to when exposed to a hazard). The approach can be summarised as follows:

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

The estimation of the parameters that make up 'normal' patterns of food access, the estimates that go into crop production and the other forecasts on other livelihoods outcomes are subject to margins of error. Understanding of livelihoods and coping

strategies is limited. It is important to realise therefore that the figures presented below are to give some broad dimensions to the magnitudes of shocks and possible outcomes. This information is early warning. It cannot be used to define numbers of beneficiaries.

The household level projections below are based on an analysis of the effects of a number of potential and measured impacts on “normal” livelihoods. It is useful to summarise the main features of the livelihood patterns in Lesotho. The main features of these livelihoods are summarised below.

3.2 Livelihood profiles

The Southern lowlands are estimated to support 273,000 people. The four main elements in this economy are food crops, paid employment, livestock and trade. Up to 44% of the population are estimated to be “poor” while 14% are considered to be “better-off”. The poor utilize five sources for their food but are most dependent upon purchases that account for 48% of the total. The better-off utilize three sources of food of which own food crops and own milk/meat products normally provide 70% of their total food access. All wealth groups earn cash incomes from a range of sources. The poor are highly dependent upon local wage employment as a source of income and they derive the smallest share of income from cash crops focussing narrowly on vegetables - surplus to their own needs. They are highly active in petty trade. In contrast to the better-off, who have significant numbers of cattle, sheep and goats the poor are more often than not stockless.

The Northern lowlands occupy the most productive arable lands in the country. They are estimated to support 435,000 people. The four main elements in this economy are food crops, paid employment, cash crops and trade. Up to 47% of the population are estimated to be “poor” while 14% are considered to be “better-off”. The patterns of access to food are similar to the southern lowlands with “poor” being the most dependent upon purchases. Crops and livestock sales form a more important source of cash income for all the wealth groups in this livelihood zone. The better-off earn over 50% of the cash earnings from crop and livestock sales. The poor are highly dependent upon local wage employment as a source of income, while the better-off gain 70% of their employment elsewhere - within country or in South Africa. While following the same general patterns of distribution across the wealth groups, livestock holdings in the area are generally higher.

The Foothills occupy a long strip of rugged and broken country that separates the mountains from the lowlands. They are estimated to support 346,000 people. Livelihoods are more agriculturally orientated as movement is limited by time or costs. Own food crops and own meat/milk consumption forms a large part to total food access. The four main elements in this food economy are food crops, livestock, paid employment and cash crops. Up to 58% of the population are estimated to be “poor” while 11% are considered to be “better-off”. The contrasting patterns of access to food across the wealth groups are repeated in the livelihood zone with the better-off deriving as much as 75% of their normal food access from their own fields. Again the “poor” remain the most dependent upon purchases. Crops and livestock sales form an important source of cash income for all the wealth groups in this livelihood zone. The better-off earn over 60% of the cash earnings from these sources. Of all the wealth groups, the poor are the most dependent upon local wage employment as a source of income, while the better-off gain 70% of their employment elsewhere - within country or in South Africa. Livestock holdings in the area are high and middle and better-off wealth groups have large flocks of sheep and goats exploiting the extensive rangeland and crop residues.

The Senqu River Valley dissects large parts of the mountains that occupy the eastern side of the country. It supports an estimated 346,000 people. The four main elements in this economy are food crops, paid employment, cash crops and livestock. Up to 58% of the population are estimated to be “poor” while 12% are considered to be “better-off”. The poor utilize six sources for their normal food access but are highly dependent upon purchases that account for 60% of the total. Both the middle and better-off groups depend on purchases for 35-40% of their total food access. The poor derive less than 20% of their cash income from cash crops and livestock sales. Their main cash earning activities focus equally on trade, non-food production and employment. The better-off gain more than 60% of their income from cash crops and livestock sales. Livestock holdings in the area are high and middle and better-off wealth groups have large flocks of sheep and goats exploiting the extensive rangeland and crop residues.

The Mountains are the least densely settled part of the country and communities tend to be much more isolated from services and markets. This zone supports approximately 290,000 people. The four main elements in this economy are food crops, livestock, non-food production and cash crops. The key feature of this livelihood zone is the important role played by livestock. Livestock holdings in the area are very high and the middle and better-off wealth groups have large herds of cattle and large flocks of sheep and goats. Up to 60% of the population are estimated to be “poor” while 16% are considered to be “better-off”. While the poor utilizes six sources of food access they are highly dependent upon purchases. Purchase accounts for 60% of their total food access. Own food crops and own milk/meat products normally provide approximately 18% of the total. The poor normally receive 15% of their food needs via gifts and relief. By contrast the better-off produce 80% of their food needs from own food crops and own milk/meat products. In the case of cash earnings, trade, non-food production and employment are the main sources for the poor. Their crop and livestock sales total less than 20% of total cash earnings. The better-off derive 70% of their cash income from crops and livestock. For them, livestock is the most important source of income accounting for 40% of the total. Because of the isolation and difficulties in travel, there is high dependency on the local employment market for all wealth groups.

The Peri-urban Livelihood zone is estimated to support 118,000 people. The key livelihood features are firstly, the high dependence of the poor on local wage employment and secondly, the role of trade as the single most important source of cash for the better-off.

Across the six livelihood zones, the poor are characterised by their lack of (or highly limited access to) surplus food or cash plus very limited ownership of livestock holdings and other capital assets. The middle and better-off wealth groups had variable but significant ‘normal’ levels of surplus food and cash plus significant levels of livestock holdings and other stocks and capital assets – providing them with reserves with which to adsorb shocks to their livelihoods.

The basis for the current assessment is the livelihood profiles updated in April 2003 and for each of the six livelihood zones in Lesotho a socio-economic breakdown has been developed to better understand the opportunities and constraints that the ‘poor’, ‘middle’ and ‘better off’ groups face in their daily lives. The impact of current shocks 2003-04 - such as low crop production, increase in price of maize meal and depressed employment markets is then measured against the baseline situation.

4. Shocks and Hazards 2003-04

Most of the effort in the April- May 2004 assessment has focused on hazard/shock monitoring. The approach utilised has therefore included extensive consultations with the communities, other stakeholders and the analysis of secondary information available at the national and livelihood zone level.

There have been four main thrusts to the vulnerability assessment and analytical process:

First, analysis of secondary data on production and supply e.g. maize, sorghum and wheat production, livestock productivity and condition, national food and livestock prices, employment levels and the general economic climate of Lesotho.

Second, participatory Community Key Informant interviews by combined teams from the Government, UN and NGOs in 60 villages (10 villages per livelihood zone) to identify;

- current production shocks (food/cash crop production, livestock productivity, fishing, trade, non-food production, livestock/grazing condition)
- changes in access to markets (employment, cash crops, livestock, trade, non-food production, food availability)
- changes in prices of food stuffs and livestock
- priorities for development outlined by the communities

In order to secure quality and consistency in the collection of information at the community level the LVAC started off with a training event for all the assessment team members that lasted for five days. The focus of the training was on livelihoods approaches to vulnerability analysis and the aim was to strengthen technical capacity of LVAC members in vulnerability assessment and analysis. Six teams, each covering one livelihood zone, then spent ten days conducting village level interviews focusing on crop production prospects, price of key items and market access issues including access to employment. Each of the teams thereafter spent four days analysing the information collected and produced reports that highlighted the assessed problems by livelihood zone.

Based on the interviews conducted, the teams produced a report for each livelihood zone. Included within the reports was the 'first cut' of the problem specification (or specification of shocks) for each livelihood zone as an attempt to measure the impact of conditions 2003-04 on rural livelihoods. This analysis was combined with other secondary data analysis and consultations with stakeholders before a final problem specification was produced to reflect a common understanding of the vulnerability context in Lesotho.

Third, multi-sectoral interviews with District Key Informants were carried out in each of the ten Districts covering relevant issues/problems in the following sectors: education, water & sanitation, agriculture, health, nutrition and child protection. However, in some cases, District key informants were not available to meet the teams or no data or reports could be accessed. Outputs of these discussions have been considered in the final analysis and report.

Fourth, consultations and consensus building with key stakeholders; after the LVAC assessment team had completed the initial analysis, a stakeholder meeting was held to discuss the initial findings and get their input into the analysis. Although some of

the key stakeholders were not able to attend, those present gave useful contributions to the analysis. The LVAC benefited from consultations with the FAO/WFP Crop and Food Supply Assessment Mission (CFSAM) and have made some adjustments to the problem specification in the light of information presented by the team and the offices of World Food Programme.

A summary of the likely impacts of all shocks and hazards for the season 2003-2004 are presented in Table 1. Drawing on research and analysis carried out, for the March 2004 LVAC Monitoring Report, the latest BOS maize and sorghum crop production forecasts, the 60 LVAC April-May community interviews and other relevant information the problem specification was finalized in late May. Changes in normal production and supply conditions for food crops, grazing, wild foods, relief/gifts and cash crops are presented as estimates of the likely outcomes for this year against an index of normal = 100. A figure of 20-40 therefore represents an estimate of 20-40% of normal production or supply. In relationship to the main income sources in the baseline livelihoods, estimates of changes in normal market access have been assessed for 2003-04. These are elaborated below. As is the case with the information in the database estimates of shocks and hazards are imprecise and the data is realistically entered as a range. Following the calculations the results are best presented in terms of 'best' and 'worst' case scenarios.

4.1 Production and supply changes.

The total rainfall for 2003-04 season reflects a small area of normal and a large area below normal conditions (70-85%). However the start of the rainy season was three months late and only really started in December as opposed to the normal expected start in September-October. This has resulted in 'poor' to 'very poor' crop performance in some locations.

The Bureau of Statistics (BOS) carried out a crop forecasting exercise in April-May 2004 and has since withdrawn the preliminary estimates of area planted that were released in February 2004. The latest May 12, 2004 BOS report shows that area planted under maize is 105296 ha as compared to the long term average (89/90 – 01/02) of 148,807 ha is 70% of the normal. The report also estimates production of maize at 65,604 MT. Table 2 compares these estimates with the long term average (89/90 – 01/02) of 109926 MT. The anticipated outturn for 2003-04 maize production is therefore 60% of normal production. Both area under cultivation and yields have been depressed in 2003-04.

In spite of widespread anticipation from the field and community levels, that the current year production will be very low, the BOS production estimate for maize for 2003-04 of 65,604 MT is higher than the FAO/WFP CFSAM estimate for 2002-03 at 61,400 MT. The BOS estimates for the districts of Qacha's Nek, Quthing and Mokhotlong are drastically low at 3%, 18% and 21% of the longterm average. On the other hand the BOS production estimates for Districts such as Mafeteng and Leribe, at 112% and 88% respectively, of the long term average seem to be too high.

NB. The Bureau of Statistics figures are compiled at District level, while the analysis carried out by the LVAC is by livelihood zones. The figures in the problem specification represent a synthesis of information from district level and community level interviews.

Table 1.

Problem Specification for the Lesotho May 2004 Assessment

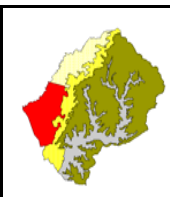
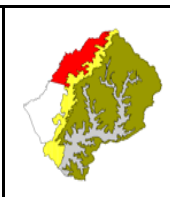
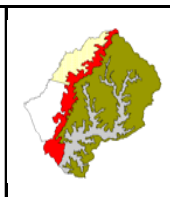
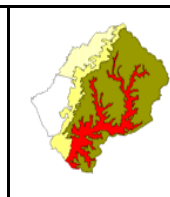
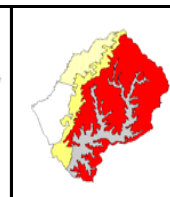
Agro Ecological Zone Livelihood Zone No.	1	2	3	4	5	6
Location						Located around the main towns in the Southern and Northern Lowlands
Livelihood Zone Name	Southern Lowlands	Northern Lowlands	Foothills	Senqu River Valley	Mountains	Peri Urban
Production/Supply Changes	Changes in "normal" production and supply conditions Index 100=Normal (Index range 0-300)					
Food Crops	20-40	50-60	20-40	10-20	20-40	20-40
Grazing	80-90	90-100	90-100	90-100	80-100	60-80
Wild Foods	60-80	90-100	100	80-100	60-80	40-60
Relief/Gifts	70-80	80-100	80-100	40-60	40-60	40-60
Cash Crops	20-40	40-60	20-40	0-10	20-30	20-30
Access to Markets	Changes in "normal" market access - Index 100=normal (or one of 5 categories of depressed market access 75-100, 50-75, 25-50, 0-25 and 0)					
Employment	75-100	75-100	50-75	25-50	75-100	75-100
Livestock	75-100	100	50-75	50-75	100	100
Cash Crops	75-100	50-75	75-100	25-50	50-75	50-75
Non-food Production	100	100	75-100	50-75	75-100	50-75
Other Trade	75-100	100	75-100	50-75	50-75	75-100
Food Purchase	100	100	100	75-100	100	100
Change Food Price	Changes in "normal" Food Price - Index 100=Normal (Index range 40-200)					
	120	125	115	105	100	120

Table 2
2003-2004 District Maize production Tonnes - compared to the Thirteen-year mean 89/90 to 01/02
District-level estimate of % deviation from 'normal ' summer production in 2003-2004

Year	District										Lesotho Total	
	1 Butha Buthe	2 Leribe	3 Berea	4 Maseru	5 Mafeteng	6 Mohale's Hoek	7 Quthing	8 Qacha's Nek	9 Mkhotlong	10 Thaba Tseka		
1	89/90	11689	34869	31893	28015	25616	10153	11100	2157	5669	10415	171576
2	90/91	2471	12964	7557	7085	6984	2820	2052	1764	2664	2557	48918
3	91/92	1521	14083	9068	7886	10932	4393	3012	1907	2865	5406	61073
4	92/93	9518	25629	11068	28346	1558	1124	609	2030	4034	7889	91805
5	93/94	5356	38137	26591	22517	15125	12646	6626	3437	6203	12424	149062
6	94/95	8213	15845	14301	8191	406	2011	1191	914	4375	7998	63445
7	95/96	8774	35828	29610	38579	26232	13060	5607	3065	12252	15482	188489
8	96/97	7500	23862	21003	32035	15869	16123	5294	3587	6376	10401	142050
9	97/98	8409	2399	20251	21404	7178	18753	6958	1474	13860	17993	118679
10	98/99	7125	31384	16801	27552	5746	9722	6495	1120	5990	12614	124549
11	99/00	11063	?	35622	26042	14492	7560	9527	3416	4638	10841	
12	00/01	4846	28167	28387	31586	19619	17919	7236	2871	8122	9436	158189
13	01/02	3220	31140	22964	19402	16386	5395	1668	2948	2931	5151	111205
14	Sum	89705	294307	275116	298640	166143	121679	67375	30690	79979	128607	1429040
15	13 year Mean	6900	24526	21163	22972	12780	9360	5183	2361	6152	9893	109926
16	Estimate 02/03	1900	9800	20100	12900	4300	3300	2600	900	1300	4300	61400
17	Estimate 03/04	2647	21683	8012	8383	14270	2904	954	75	1262	5413	65603
18	Forecast 03/04 as % of 13-year Mean	38%	88%	38%	36%	112%	31%	18%	3%	21%	55%	60%

Source:

1. Lines 1-13 Lesotho Agricultural Situation report 2000/01 & 2001/02 MOAFS & BOS Lesotho
2. Line 16 - FAO/WFP CFSAM Estimates May 2003
3. Line 17 - BOS Crop Forecasts of Production 2003/04 12th May 2004

Own Food Crops.

Own food crops play 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 poor is 5-30%. For the middle income group it is in the range 20-50% and 30-60% for the better off.

Production and supply changes for own food crops are estimated to be 20-40% for the Southern Lowlands, 50-60% for the Northern Lowlands, 20-40% for the Foothills, 10-20% for the Senqu River Valley, 20-40% for the Mountains and 20-40% for the Peri-urban areas. The reasons for the anticipated low production include late start of summer rains, un-even distribution of the rains, frost attack especially in the mountains and lack of inputs. The Senqu River Valley is the most affected zone and only 10 – 20% of normal production is anticipated. The Northern Lowlands on the other hand has better production prospects at 50 – 60% and this is usually a high crop production area as compared to the Senqu River Valley and the Southern Lowlands. An additional factor for the relatively high production in the Northern Lowlands was the contribution of the Lesotho Highlands Development Authority to boost agricultural production for the households affected by the construction work. The provision of inputs through this project greatly boosted the production levels.

Cash Crops.

Depending upon livelihood zone, cash crops are made up of a combination of a number of crops, whose rank order (in terms of significance), vary from location to location. They include: vegetables, beans, peas, potatoes, sunflower, paprika, maize, sorghum, wheat, dagga and pumpkin.

All the main summer cash crops (grown under rain-fed conditions), experienced depressed production along similar lines to the production estimates as set out for maize and sorghum above. Low levels of precipitation also depressed winter cash crop production. There are some notable exceptions to this general picture of cash crops. In most locations, farmers took the opportunity of the improved rainfall in February to plant out larger (compensatory) areas of vegetables – given the very poor summer crop production. However, many who took up this opportunity were faced by lack of market to sell the vegetables - especially so in the southern lowlands.

Overall incomes from cash cropping 2003-04, were depressed and in the range consistent with the production forecasts for the main crops of maize, sorghum and wheat. Production and supply changes for cash crops are 20-40% for the Southern Lowlands, 40-60% for the Northern Lowlands, 20-40% this and for the Foothills, 0-10% for the Senqu River Valley, 20-30% for the Mountains and Peri-urban areas.

Livestock and grazing conditions

Poor rainfall resulted in insufficient forage for livestock in 2003-04. There were significant numbers of livestock losses at the end of the dry season especially where fires destroyed grazing reserves. Added to these losses, stock theft is widespread and therefore many farmers have also lost animals to thieves in 2003-04. In Mokhotlong for instance, the District Agricultural Officer said in spite of the community and Government policing structures that are in place, livestock theft is on the increase. He cited the example of the government flock of 41 sheep stolen in March

in spite of all measures to ensure they are safe. In addition livestock production is in decline because of poor disease control. In many areas, dipping facilities are in poor condition. Hard times have also meant that people have been slaughtering animals for food and for social obligations (such as funerals). In some locations, livestock numbers are therefore declining fast. Poor range management practices are still a problem as they result in overgrazing especially in the Senqu River Valley. The rainfall in December through March brought very welcome relief to the rangelands and improved the water supply situation.

In spite of the problems affecting livestock, the rains received in December-March improved the pasture and the overall situation has been judged to be normal or near normal - 80-90% in the Southern Lowlands, 90-100% in the Northern Lowlands, Foothills and Senqu River Valley, 80-100% in the Mountains and 60-80% in the Peri-urban areas.

Supply of wild foods 2003-04

Based on the 60 community level interviews carried out by the LVAC in the April-May assessment, supply of wild foods has been depressed to - 60-80% in the Southern Lowlands, 90-100% in the Northern Lowlands, 'normal' in the Foothills, 80-100% in the Senqu River Valley, 60-80% in the Mountains and 40-60% in the Peri-urban areas. While wild foods only account for 0-5% of total food access for the better-off, the poor in all areas secure between 5-15% of their food from wild foods. In the Mountains, the decline in supply of wild foods was attributed to lack of adequate snow in winter to moisten the ground for the wild food to grow in time.

Supply of within-community relief/gifts 2003-04

The baseline profiles on this source of food indicate that gifts/relief are insignificant for the better-off. However, for the poor, they are a significant part of total food access. For example, in the Senqu River Valley area they make up 20-25% of their normal food access. In the other five areas, normal food access (for the poor) from gifts/relief is in the range 5-20%. Clearly, reductions in normal access to gifts and relief will affect the poor in all areas of Lesotho. Based mainly on the evidence coming out of the community level interviews access to gifts and relief are assessed to be as follows: 70-80% of normal in the Southern Lowlands, 80-100% in the Northern Lowlands and Foothills and 40-60% in the Senqu River Valley, Mountains and the Peri-Urban areas.

4.2 Changes in normal market access 2003-04

The ability to source cash incomes in any year is very much affected by changes to normal market access. This can affect total cash flows from employment and remittances, livestock and livestock product sales, cash crops sales, non-food production incomes and income from trading activity.

Changes in employment markets

The contribution of employment and remittance incomes to total family cash incomes is important for all wealth groups in Lesotho. There are some important differences. Generally employment incomes are much more important for the poor. They are very high in the case of the Peri-Urban areas – 50-75% of the total. In the rural areas, employment and remittances contribute to between 25-60% of total cash income for the poor. The middle and better off wealth groups are less dependent on employment and remittances as they have more diversified sources of cash income.

Access to employment markets is judged to be 75-100% of normal for the Southern Lowlands, Northern Lowlands, Mountains and Peri-Urban areas. The situation in the Foothills is more depressed at 50-75% of normal and the Senqu river valley situation is very depressed at 25-50% of normal. The situation in Senqu River Valley is exacerbated by depressed agriculture activity thus less opportunities for agricultural employment and declining remittances from South Africa. The people who were formally accessing employment in South Africa are now unable to continue hiring labour and have to do the jobs by themselves.

Changes in access to livestock and livestock product markets

The significance of livestock and livestock product sales to household income is very much a function of the wealth status of the household. In the case of the poor the range is from 0-10% while for the better-off the range varies between 10-50%. The middle-income group indicates a range of 5-40%.

Access to livestock and livestock product markets is judged to be normal in the Northern Lowlands, Mountains and Peri-Urban areas. It is depressed to a level of 75-100% of normal for the Southern Lowland's and 50-75% of normal in the Foothills and Senqu River Valley. In most areas, livestock products such mohair and wool are purchased directly by Government bodies and therefore prices are regulated and stable. For livestock and to some extent livestock products, however, private business people buy directly from the community and often negotiate for very low prices. The fairly good market access for livestock was attributed to the several social obligations facing the community especially funerals. Livestock sales are also largely as a means of coping with food shortages in the communities.

Changes in normal market access cash crops 2003-4.

Cash crops are an important source of income for all wealth groups in Lesotho. Cash crops incomes are more important for the wealthier than the poorer groups. The percentage contribution of cash crops to total cash income for poor households is in the range 5-30%. For the middle-income group it falls between 15-35% and for the better-off it is within the range 20-45%.

Access to cash crops markups is judged to be 75-100% of normal in the Southern Lowlands and the Foothills, 50- 75% of normal in the Northern Lowlands, mountains and Peri-Urban areas. It is the most depressed in the Senqu River Valley at 25-50% of normal.

Changes in access to non-food production markets 2003-4

The percentage contribution of non-food production to normal total cash income is in the range 0-10% for the rich. It is much more important for the poor and falls in the range 10-40% and for the middle group in the range 5-30%.

Access to non-food production markets is considered to be normal in the Southern and Northern Lowlands. It is considered to be 75-100% of normal in the Foothills and Mountains and is depressed to a level of 50- 75% in the Senqu River Valley and Peri-Urban areas.

Changes in access to other trade markets 2003-4

Trade as a contribution to total household cash income is most important for the better off and contributes 10-45% of all income for this group. It contributes between the 0-30% for the poor and 5-30% for the middle-income group.

The LVAC assesses that other trade markets are normal in the Northern Lowlands, but depressed to 75-100% of normal in the Southern Lowlands, Foothills, and Peri-Urban areas and is severely depressed to 50-75% of normal in the Senqu River Valley and Mountains.

Changes in access to food purchase markets 2003-4

Except for the Senqu River Valley (at 75-100% of normal) access to food purchase markets were considered to be normal across the country in 2003-04.

4.3 Changes in food prices 2003-4

Based on the community level interviews carried out by the LVAC in the April-May assessment, food prices have inflated by up to 25% in 2003-04. Food prices were collected for April 2003 and April 2004 and a comparison made. Changes in normal prices are measured against an index of 'normal' = 100. The problem specification has defined the change in food price at 120 for the Southern Lowlands, at 125 for the Northern Lowlands, 115 for the Foothills, 105 for the Senqu River Valley, 100 for the Mountains and 120 for the Peri-Urban areas. The change in food prices for the mountains was more problematic to measure because in some villages prices had fallen to as low as 25% while in others price had gone up. As a result, LVAC did a price crosschecking in local shops in Mokhotlong and Thaba Tseka. Although similar patterns of price fluctuations were maintained i.e increase in price in some areas and decline in others, differences between the price increase and decrease in the different areas was found to be less than in the initial analysis. As a result LVAC has judged changes in price to be at normal for this Livelihood Zone.

5. Impacts on Livelihoods 2003-04

In this section of the report we present estimates of the impacts of the assessed shocks/hazards on livelihoods. For each Livelihood zone and each wealth group, the results are calculated in two broad stages. The first presents the calculation of the deficits (or surpluses) in each area/population which is likely to result from the problem or change in the context as specified in Table 1. The first stage of calculation yields an initial deficit or crude deficit. The second stage of the calculation is to assess the likely ability of the population to be able to cover the deficit calculated in stage one, given their food stocks and cash reserves; and their ability to expand their levels of employment, livestock, trade and non-food production; and the practice (or not) of the population to redistribute available food within the population in time of crisis. This yields a final deficit after taking into account possible coping strategies and their effects on the initial deficit.

Although a computer program is used for these calculations, the estimation of the deficit/surplus is calculated arithmetically. For example, if the normal contribution to the economy from food crops is 50% (of all normal food supply), and the problem entered is a 50% reduction in food production, then the deficit in that case would be

25% of normal food supply ($0.5 \times 0.5 = 0.25$). If the area normally produces a food surplus above normal consumption, this is used to weight the deficit calculation. In the case of the wealthier sub-groups in any one area, normal surplus production can often completely off-set the effects of a shock on crop production. Deficits in cash income are calculated similarly, the deficit being used to calculate resulting reduction in normal food purchasing power. Changes in market access and rises in food prices are used (again by simple arithmetic) to diminish the relevant source of cash income. Additional production (over and above normal levels) entered as part of any problem/context specification is used to reduce any deficit accumulated from shocks to other components of production or income.

In order to assess the ability of the area/population or wealth groups to compensate for the assessed deficit, a series of steps and judgments are used to model their ability to overcome the assessed deficit. It is assumed that food stocks (if any), would be consumed. Normal levels of food stocks (as per the baseline assessments) could therefore be used to make up part or all of deficit that is estimated in stage one. NB. In this May 2004 assessment the LVAC has assumed that there are no food stocks – given three years of ‘poor’ and ‘very poor’ production 2001-02 to 2003-04. Where it is assessed to be possible and incorporated into the baseline profiles, recourse to additional use of wild foods can be a means to offset the deficit. A simple algorithm is used to estimate the contribution of additional access to wild food in offsetting the deficit. The estimate of expandability of wild food in the baseline is in terms of an index in the range is 0-4. If there is a deficit, this is reduced in proportion to the wild foods index number. E.g. Where the index is zero there is no reduction to the deficit. Given an index 1 additional use of wild foods reduces the deficit by 20% and so on to a maximum of 80% at index level=4. In the case of the latter, wild foods would have to be a very abundant part of normal total food access. Where information on cash saving exists, they are used to buy food in the event of a deficit. Clearly, the level of savings in combination with assessed food prices will limit the amount of food acquired and the degree to which the assessed deficit is reduced. NB. The baseline information in Lesotho on cash savings is non-existent. We have no credible estimates of typical levels of cash savings by wealth groups. This type of information requires much more detailed baseline livelihood profiles.

The assessment of the ability of households to compensate for the initial deficit proceeds with the assumption that household will attempt to sell more labour, livestock, engage in expanded levels of other trade and sell more non-food production. Using settings for supply elasticity, prices of marketed commodities are adjusted by the computer simulation with each successive transaction in order to simulate the likely effects of increase supply of livestock, labour or other commodities on the likely prices and hence ability of these strategies to off-set the deficit. Finally, and where the baseline surveys have indicated this to be the case, it's assumed that the population would redistribute on non-market terms, any available surplus from surplus to deficit population, according to the assessed redistribution index supplied in the database. The quantity of surplus available for redistribution is calculated as a percentage (Index Number x 20) of the surplus and is redistributed in proportion to the deficit in each affected decile (10% groups) of the population.

Starting with the Southern Lowlands and proceeding through each subsequent Livelihood zone - the Northern Lowlands, the Foothills, the Senqu River Valley, the Mountains and the Peri-Urban - the following six tables (Tables 3, 4, 5, 6, 7, 8) and attached graphs present the baseline normal patterns of access to food in comparison to the assessed situation in 2003-04 for each wealth group. The differences between the assessed situation in 2003-04 and the baseline are used to define the initial or crude deficit. Analysis at this level enables one to understand how

the impacts of shocks/hazards at an area level vary according to the livelihood profiles of the relative wealth groups. The tables and figures estimate the effects of the possible coping strategies on the initial deficit. The result yields a final deficit (or not) for each wealth group.

It is important to recognize that the ability to seek additional employment and recourse to the additional livestock sales may both be adversely affected by the HIV/AIDS epidemic. Illness may simply prevent potentially economically active persons from seeking additional employment. Within many families, the costs of dealing with illness and funeral expenses may have already depleted available livestock assets. We have to recognize that Livelihood profiles may have been changing rapidly over the past three years.

NB. Due to technical difficulties with the computer programme, estimates for the middle wealth groups in the Southern Lowlands and the Mountains have been made by interpolation.

The Southern Lowlands

For the Southern Lowlands 'poor', the assessment suggests a loss of 16% of their total food access to reduced food crop production, a 1% loss due to reduced supply of meat and milk products, a 4% reduction in their access to within community gift/relief transfers and a 10% reduction in total food access due to their loss of income and hence ability to purchase food. The net effect is a total initial deficit of 31%. The use of additional employment (+10) and additional livestock sales (+8%) enables the poor to reduce their initial deficit of 31% down to a total of 13% of their annual food/income needs.

For the 'middle' group the assessment suggests a loss of 26% of their total food access due to reduced food crop production, a 2% loss due to reduced supply of meat and milk products, a 2% reduction in their access to within community gift/relief transfers and a 9% reduction in total food access due to their loss of income and hence ability to purchase food. The net effect is a total initial deficit of 39%. In this particular case coping strategies are assumed to reduce their deficit to 12%.

For the 'better-off' the assessment suggests a loss of 28% of their total food access due to reduced food crop production, a 2% loss due to reduced supply of meat and milk products. The net effect is a total initial deficit of 30%. The use of additional employment (+9) and additional livestock sales (+9%) enables this group to reduce their initial deficit down to a total of 12%.

The Northern Lowlands

For the Northern Lowlands 'poor' the assessment suggests a loss of 9% of their total food access due to reduced food crop production, a 1% reduction in their access to within community gift/relief transfers and a 8% reduction in total food access due to their loss of income and hence ability to purchase food. The net effect is a total initial deficit of 18%. The use of additional employment (+9) and additional livestock sales (+2%) enables the poor to reduce their initial deficit down to a total of 7%.

For the 'middle' group the assessment suggests a loss of 12% of their total food access due to reduced food crop production and a 3% reduction in total food access due to their loss of income and hence ability to purchase food. The net effect is a total initial deficit of 15%. The use of additional employment (+9), additional livestock sales (+3) and redistribution (+1) enables the middle to reduce their deficit to 2%.

The 'better-off' households are assessed to face no deficit in spite of the reduced crop production. The reason for this is that under normal circumstances, the better off households produce a surplus and therefore the reduction in crop production will not affect their total food access.

The Foothills

For the 'poor' in the Foothills, the assessment suggests a loss of 18% of their total food access to reduced food crop production, a 1% loss due to reduced supply of meat and milk products, a 1% reduction in their access to within community gift/relief transfers and a 17% reduction in total food access due to their loss of income and hence ability to purchase food. The net effect is a total initial deficit of 37%. The use of additional employment (+8) and additional livestock sales (+3%) enables the poor to reduce their initial deficit of 37% down to a total of 26% of their annual food/income needs.

For the 'middle' group the assessment suggests a loss of 25% of their total food access due to reduced food crop production, a 1% loss due to reduced supply of meat and milk products and a 9% reduction in total food access due to their loss of income and hence ability to purchase food. The net effect is a total initial deficit of 35%. The use of additional employment (+8) and additional livestock sales (+12%) enables the poor to reduce their initial deficit of 35% down to a total of 15% of their annual food/income needs.

For the 'better-off' the assessment suggests a loss of 26% of their total food access due to reduced food crop production, a 1% loss due to reduced supply of meat and milk products. The net effect is a total initial deficit of 27%. The use of additional employment (+6) and additional livestock sales (+13%) enables this group to reduce their initial deficit down to a total of 8%.

The Senqu River Valley

For the 'poor' in the Senqu River Valley, the assessment suggests a loss of 18% of their total food access to reduced food crop production, a 1% loss due to reduced supply of meat and milk products, a 12% reduction in their access to within community gift/relief transfers and a 22% reduction in total food access due to their loss of income and hence ability to purchase food. The net effect is a very large total initial deficit of 53%. The use of additional employment (+7) and additional livestock sales (+4%) enables the poor to reduce their initial deficit of 53% down to a large total of 42% of their annual food/income needs.

For the 'middle' group the assessment suggests a loss of 25% of their total food access due to reduced food crop production, a 1% loss due to reduced supply of meat and milk products, a 4% reduction in their access to within community gift/relief transfers and an 18% reduction in total food access due to their loss of income and hence ability to purchase food. The net effect is a total initial deficit of 48%. The use of additional employment (+7) and additional livestock sales (+12%) enables the poor to reduce their initial deficit of 48% down to a total of 29% of their annual food/income needs.

For the 'better-off' the assessment suggests a loss of 27% of their total food access due to reduced food crop production, a 1% loss due to reduced supply of meat and milk products, and a 15% reduction in total food access due to their loss of income and hence ability to purchase food. The net effect is a total initial deficit of 43%. The

use of additional employment (+7) and additional livestock sales (+17%) enables this group to reduce their initial deficit down to a total of 19%.

The Mountains

For the 'poor' in the Mountains, the assessment suggests a loss of 11% of their total food access to reduced food crop production, a 3% reduction in access to supply of wild foods, an 8% reduction in their access to within community gift/relief transfers and a 18% reduction in total food access due to their loss of income and hence ability to purchase food. The net effect is a total initial deficit of 40%. The use of additional employment (+10) and additional livestock sales (+12%) enables the poor to reduce their initial deficit of 40% down to a total of 18% of their annual food/income needs.

For the 'middle' group the assessment suggests a loss of 29% of their total food access due to reduced food crop production, a 3% loss due to reduced supply of meat and milk products, a 1% reduction in their access to wild foods, a 1% reduction in their access to within community gift/relief transfers and a 6% reduction in total food access due to their loss of income and hence ability to purchase food. The net effect is a total initial deficit of 40%. In this particular case coping strategies are assumed to reduce the deficit to 13%.

For the 'better-off' the assessment suggests a loss of 34% of their total food access due to reduced food crop production, a 3% loss due to reduced supply of meat and milk products. The net effect is a total initial deficit of 37%. The use of additional employment (+9) and additional livestock sales (+15%) enables this group to reduce their initial deficit down to a total of 13%.

The Peri-Urban Areas

For the 'poor' in the Peri-Urban areas, the assessment suggests a loss of 10% of their total food access to reduced food crop production, a 5% loss due to reduced supply of wild foods, a 8% reduction in their access to within community gift/relief transfers and a 17% reduction in total food access due to their loss of income and hence ability to purchase food. The net effect is a large total initial deficit of 40%. The use of additional employment (+11) and access to redistribution (+2%) enables the poor to reduce their initial deficit of 40% down to 27% of their annual food/income needs.

For the 'middle' group the assessment suggests a loss of 21% of their total food access due to reduced food crop production, a 4% loss due to reduced supply of meat and milk products, 1% loss due to reduced supply of wild foods and an 17% reduction in total food access due to their loss of income and hence ability to purchase food. The net effect is a total initial deficit of 43%. The use of additional employment (+11) enables the poor to reduce their initial deficit of 43% down to a total of 32% of their annual food/income needs.

For the 'better-off' the assessment suggests a loss of 12% of their total food access due to reduced food crop production, a 3% loss due to reduced supply of meat and milk products, and a 1% reduction in total food access due to their loss of income and hence ability to purchase food. The net effect is a total initial deficit of 16%. The use of additional employment (+7) enables this group to reduce their initial deficit down to a total of 9%.

Table 3

ESTIMATED RURAL POPULATION BY LIVELIHOOD ZONE AND WEALTH GROUP

Livelihood Zone	Estimated Population	'Poor'		'Middle'		'Better Off'	
		%	Population	%	Population	%	Population
S. Lowlands	273,000	44	120,120	42	114,660	14	38,220
N. Lowlands	435,000	47	204,450	39	169,650	14	60,900
Foothills	346,000	58	200,680	31	107,260	11	38,060
Senqu River Valley	346,000	58	200,680	30	103,800	12	41,520
Mountains	290,000	60	174,000	24	69,600	16	46,400
Peri Urban	118,000	41	48,380	48	56,640	11	12,980
TOTAL	1,808,000		948,310		621,610		238,080

Table 4

Southern Lowlands

Sources of food - % of total

Possible coping strategies and effects on deficit - % of total

Baseline 'Normal' Access to food
Assessed Situation in 2003-2004
Total Deficit (no coping strategies)

Food Crops	Meat & Milk	Fish	Wild Foods	Within community Gift/Relief	Purchases	=	Totals
26	5	0	8	14	46	=	99
10	4	0	8	10	36	=	68
16	1	0	0	4	10	=	31

Less

+ Food Stocks	+ additional wild foods	+ additional employment	+ additional Livestock sales	+ additional other trade	+ additional non-food production	+ redistribution	Totals
0	0	10	8	0	0	0	18

Final Defici 13

Baseline 'Normal' Access to food
Assessed Situation in 2003-2004
Total Deficit (no coping strategies)

36	16	0	4	4	41	=	101
10	14	0	4	2	32	=	62
26	2	0	0	2	9	=	39

Less

NB assessed by interpolation (it was not possible to use the simulation programme for this group)

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Final Defici 12

Baseline 'Normal' Access to food
Assessed Situation in 2003-2004
Total Deficit (no coping strategies)

49	18	0	0	0	33	=	100
21	16	0	0	0	33	=	70
28	2	0	0	0	0	=	30

Less

0	0	9	9	0	0	0	18
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Final Defici 12

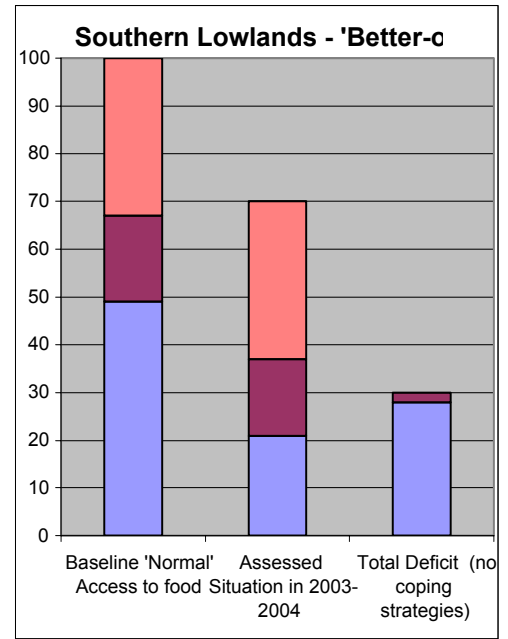
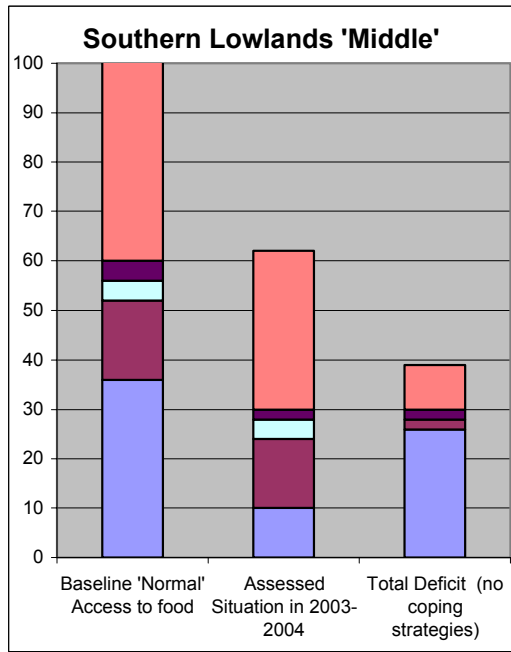
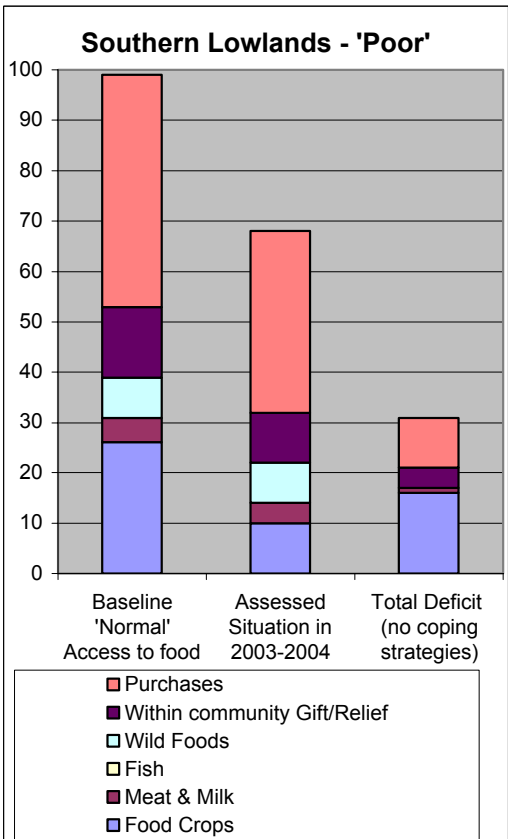


Table 5

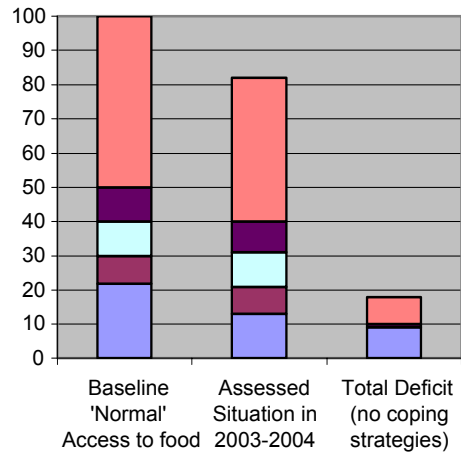
Northern Lowlands

Sources of food - % of total

Possible coping strategies and effects on deficit - % of total

	Food Crops	Meat & Milk	Fish	Wild Foods	Gift/Relief	Purchases	Total		Food Stocks	+ additional wild foods	+ additional employment	+ additional Livestock sales	+ additional other trade	+ additional non-food production	+ redistribution	Totals	
Poor Baseline 'Normal' Access to food	22	8	0	10	10	50	=	100									
Assessed Situation in 2003-2004	13	8	0	10	9	42	=	82									
Total Deficit (no coping strategies)	9	0	0	0	1	8	=	18	Less	0	0	9	2	0	0	0	11
																	Final Defici 7
Middle Baseline 'Normal' Access to food	48	13	0	4	2	33	=	100									
Assessed Situation in 2003-2004	36	13	0	4	2	30	=	85									
Total Deficit (no coping strategies)	12	0	0	0	0	3	=	15	Less	0	0	9	3	0	0	1	13
																	Final Defici 2
Better-off Baseline 'Normal' Access to food	55	11	0	2	0	32	=	100									
Assessed Situation in 2003-2004							=	100									
Total Deficit (no coping strategies)							=	0	Less								0
																	Final Defici 0

Northern Lowlands - 'Poor'



- Purchases
- Within community Gift/Relief
- Wild Foods
- Fish
- Meat & Milk
- Food Crops

Northern Lowlands - 'Middle'

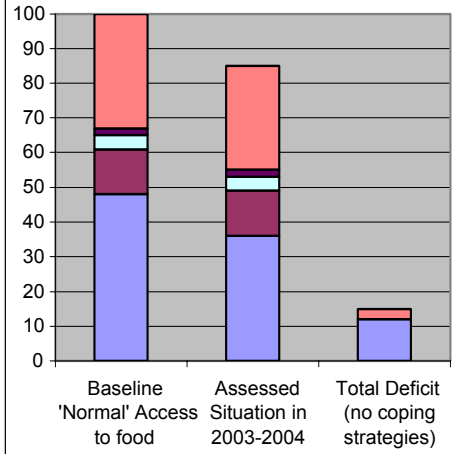


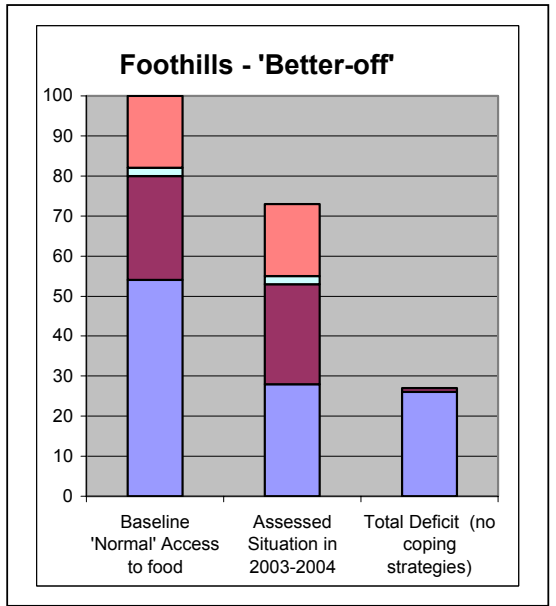
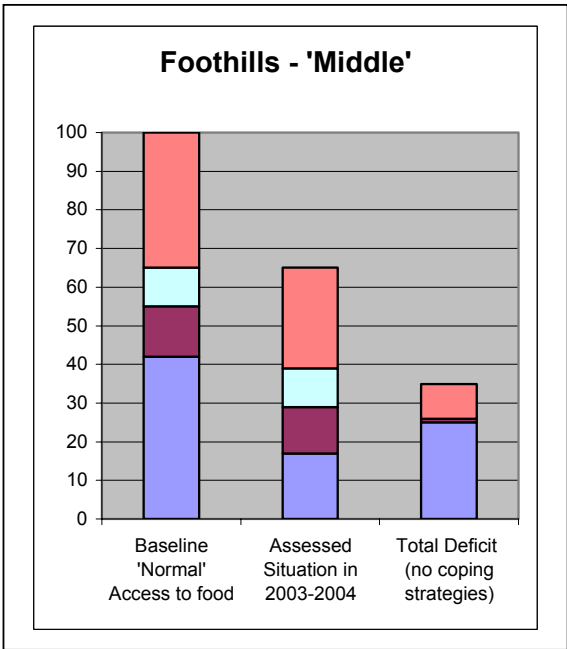
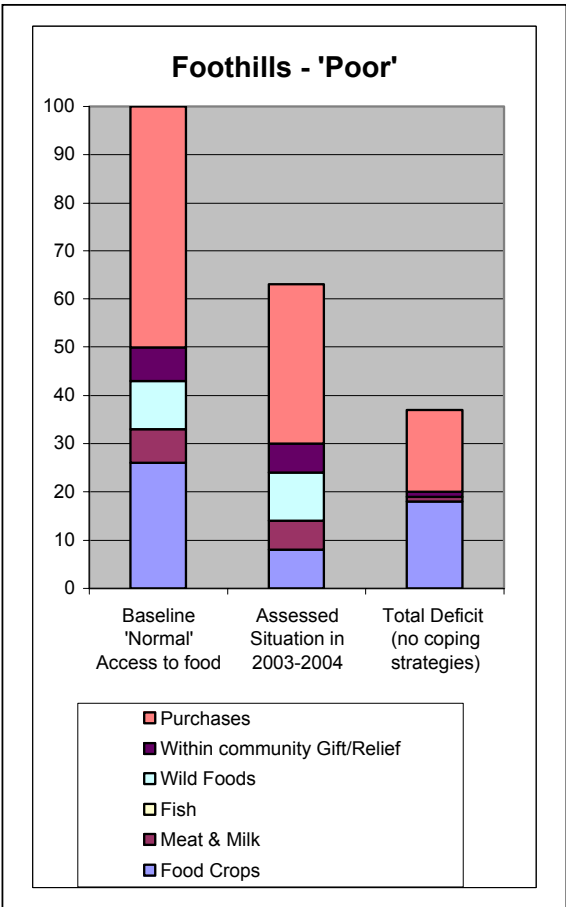
Table 6

Foothills

Sources of food - % of total

Possible coping strategies and effects on deficit - % of total

		Food Crops	Meat & Milk	Fish	Wild Foods with community Gift/Relief	Purchases	=	Totals									
Poor	Baseline 'Normal' Access to food	26	7	0	10	7	=	100									
	Assessed Situation in 2003-2004	8	6	0	10	6	=	63									
	Total Deficit (no coping strategies)	18	1	0	0	1	=	37	Less	+ Food Stocks	+ additional wild foods	+ additional employment	+ additional Livestock sales	+ additional other trade	+ additional non-food production	+ redistribution	Totals
									0	0	8	3	0	0	0	11	Final Defici 26
<hr/>																	
Middle	Baseline 'Normal' Access to food	42	13	0	10	0	=	100									
	Assessed Situation in 2003-2004	17	12	0	10	0	=	65									
	Total Deficit (no coping strategies)	25	1	0	0	0	=	35	Less	0	0	8	12	0	0	0	20
<hr/>																	
Better-off	Baseline 'Normal' Access to food	54	26	0	2	0	=	100									
	Assessed Situation in 2003-2004	28	25	0	2	0	=	73									
	Total Deficit (no coping strategies)	26	1	0	0	0	=	27	Less	0	0	6	13				19
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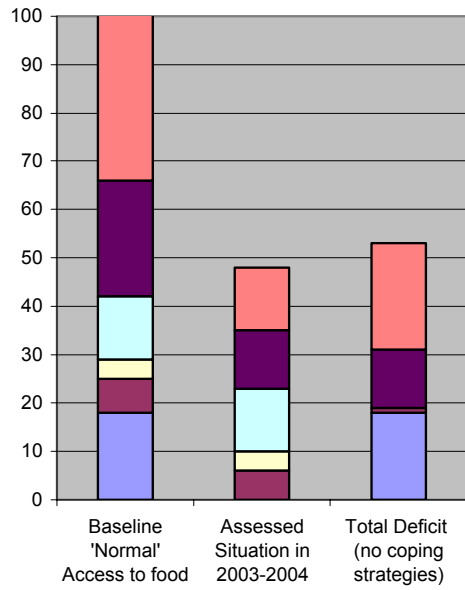


Senqu River Valley

Table 7

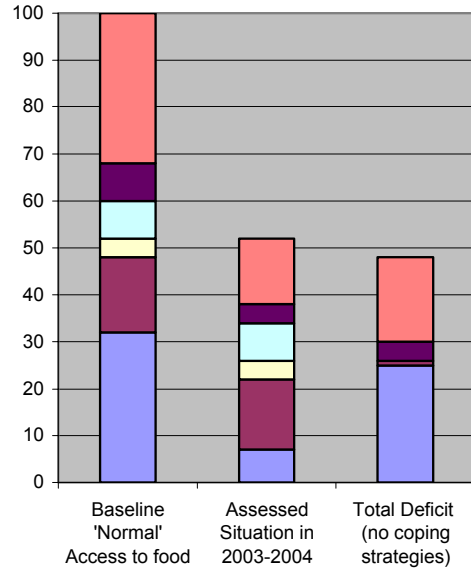
Weath Group		Sources of food - % of total							Possible coping strategies and effects on deficit - % of total								
		Food Crops	Meat & Milk	Fish	Wild Foods	Within community Gift/Relief	Purchases	= Totals	+ Food Stocks	+ additional wild foods	+ additional employment	+ additional Livestock sales	+ additional other trade	+ additional non-food production	+ redistribution	= Totals	
Poor	Baseline 'Normal' Access to food	18	7	4	13	24	35	=	101								
	Assessed Situation in 2003-2004	0	6	4	13	12	13	=	48								
	Total Deficit (no coping strategies)	18	1	0	0	12	22	=	53	Less	0	0	7	4	0	0	0
Final Defici 42																	
Middle	Baseline 'Normal' Access to food	32	16	4	8	8	32	=	100								
	Assessed Situation in 2003-2004	7	15	4	8	4	14	=	52								
	Total Deficit (no coping strategies)	25	1	0	0	4	18	=	48	Less	0	0	7	12	0	0	0
Final Defici 29																	
Better-off	Baseline 'Normal' Access to food	33	26	0	2	2	37	=	100								
	Assessed Situation in 2003-2004	6	25	0	2	2	22	=	57								
	Total Deficit (no coping strategies)	27	1	0	0	0	15	=	43	Less	0	0	7	17	0	0	
Final Defici 19																	

Senqu River Valley - 'Poor'



- Purchases
- Within community Gift/Relief
- Wild Foods
- Fish
- Meat & Milk
- Food Crops

Senqu River Valley - 'Middle'



Senqu River Valley - 'Better-off'

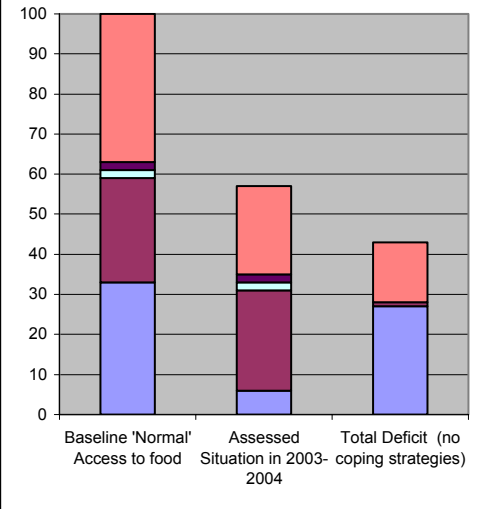


Table 8

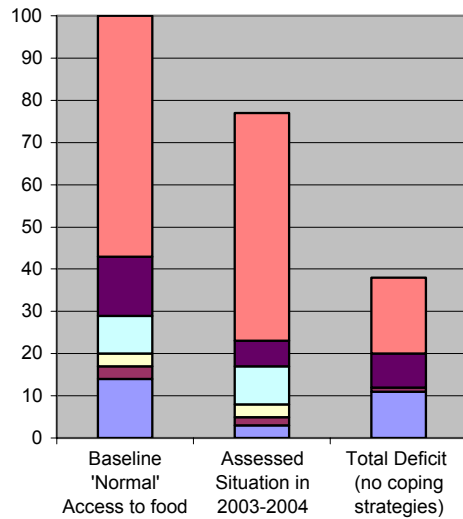
Mountains

Sources of food - % of total

Possible coping strategies and effects on deficit - % of total

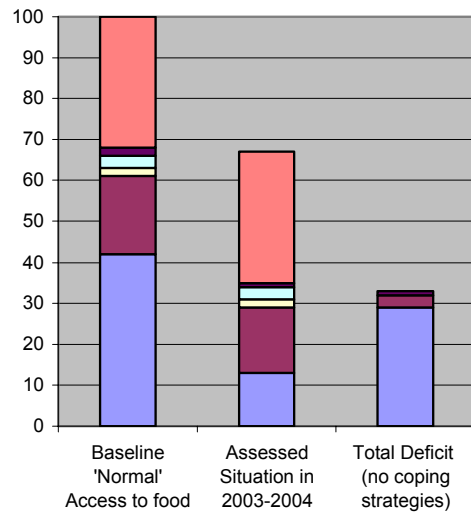
	Food Crops	Meat & Milk	Fish	Wild Foods within community	Gift/Relief	Purchases	=	Totals		+ Food Stocks	+ additional wild foods	+ additional employment	+ additional Livestock sales	+ additional other trade	+ additional non-food production	+ redistribution	Totals
Poor Baseline 'Normal' Access to food	14	3	3	9	14	57		100									
Assessed Situation in 2003-2004	3	3	3	6	6	39		60									
Total Deficit (no coping strategies)	11	0	0	3	8	18		40	Less	0	0	10	12	0	0	0	22
																	18
																	Final Deficit
Middle Baseline 'Normal' Access to food	42	19	2	3	2	32		100									
Assessed Situation in 2003-2004	13	16	2	2	1	26		60									
Total Deficit (no coping strategies)	29	3	0	1	1	6		40	Less								27
																	Final Defici
																	13
																	Final Deficit
Better-off Baseline 'Normal' Access to food	55	27	0	2	0	16		100									
Assessed Situation in 2003-2004	21	24	0	2	0	16		63									
Total Deficit (no coping strategies)	34	3	0	0	0	0		37	Less	0	0	11	13	0	0	0	24
																	Final Defici
																	13
																	Final Deficit

Mountains - 'Poor'



- Purchases
- Within community Gift/Relief
- Wild Foods
- Fish
- Meat & Milk
- Food Crops

Mountains - 'Middle'



Mountains - 'Better-off'

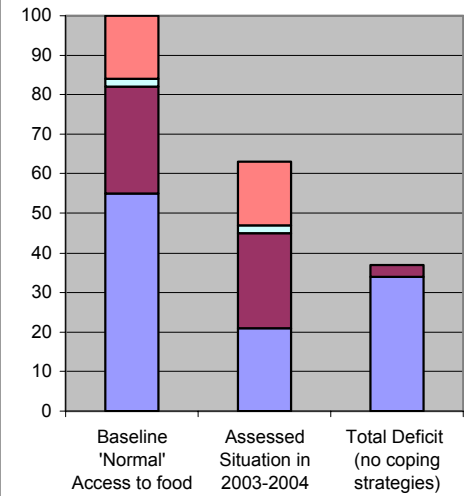


Table 9

Peri Urban

Sources of food - % of total

Possible coping strategies and effects on deficit - % of total

Poor

Baseline 'Normal' Access to food
Assessed Situation in 2003-2004
Total Deficit (no coping strategies)

Food Crops	Meat & Milk	Fish	Wild Foods	Within community Gift/Relief	Purchases	= Totals
12	2	0	8	15	64	101
2	2	0	3	7	47	61
10	0	0	5	8	17	40

Less

+ Food Stocks	+ additional wild foods	+ additional employment	+ additional Livestock sales	+ additional other trade	+ additional non-food production	+ redistribution	= Totals
0	0	11	0	0	0	2	13

Final Defici 27

Middle

Baseline 'Normal' Access to food
Assessed Situation in 2003-2004
Total Deficit (no coping strategies)

32	12	0	2	2	52	100
11	8	0	1	2	35	57
21	4	0	1	0	17	43

Less

0	0	11	0	0	0	0	11
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Final Defici 32

Better-off

Baseline 'Normal' Access to food
Assessed Situation in 2003-2004
Total Deficit (no coping strategies)

37	24	0	0	0	40	101
25	21	0	0	0	39	85
12	3	0	0	0	1	16

Less

0	0	7	0	0	0	0	7
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Final Defici 9

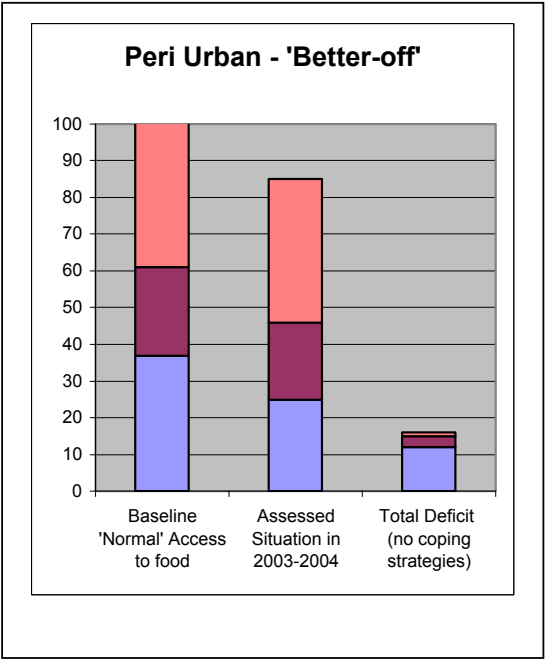
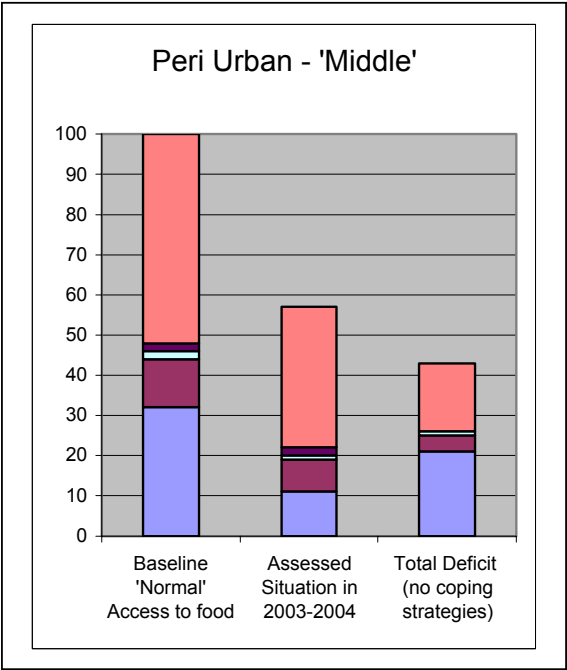
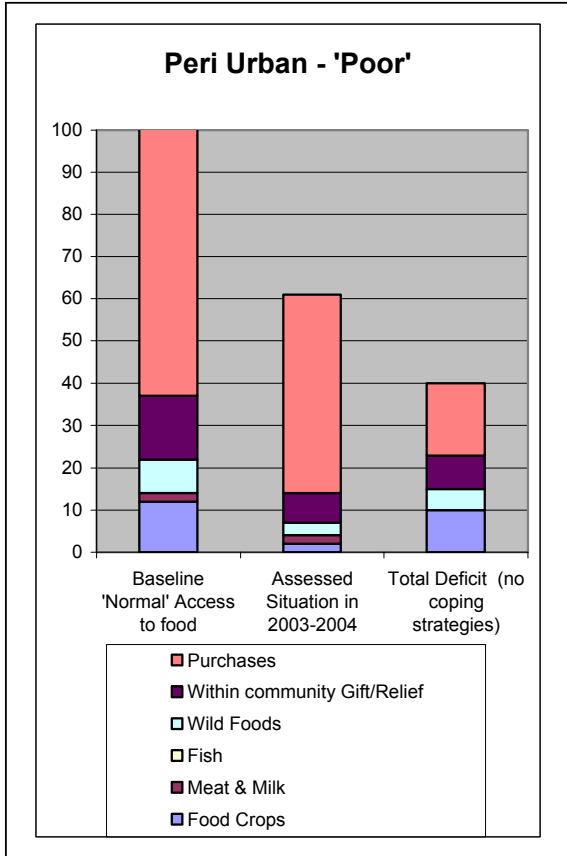


Table 10

Metric Tonnes Maize Meal Versus Income Transfer for the 'Poor' 2004-05

615 Assumed local rural price per MT maize meal in US \$

Livelihood Zone	Wealth Group	Numbers of affected people	x	Est. deficit as a % of annual food needs	=	MT of grain required to off-set 100% of the deficit	or	Total Income Transfer US \$ (using current rural purchase prices of maize meal per Kg of US \$ 0.615)	or	Total income transfer required per affected person in US \$	or	Total income transfer required per affected Family of 6 persons in US \$
Southern Lowlands	Poor	120,120		13%		2,280		\$1,402,125		\$11.67		\$70.04
Nothern Lowlands	Poor	204,450		7%		2,089		\$1,285,030		\$6.29		\$37.71
Foothills	Poor	200,680		26%		7,618		\$4,684,955		\$23.35		\$140.07
Senqu River Valley	Poor	200,680		42%		12,306		\$7,568,004		\$37.71		\$226.27
Mountains	Poor	174,000		18%		4,573		\$2,812,223		\$16.16		\$96.97
Peri Urban	Poor	48,380		27%		1,907		\$1,172,891		\$24.24		\$145.46
		948,310				30,773		\$18,925,227				

Discussion on the Income transfer analysis.

Lesotho produces approximately 30% of the total food required to feed its population in a normal year. This means that 60% of the annual cereal requirement has to be imported at the going regional market price. Household purchasing power therefore plays an important role in normal household food access. In the Mountains for example, 'poor' households purchase approximately 60% of their total annual food requirements. On the other hand they access only 15% of their annual food requirements through crop production. This in effect means that such households are probably more vulnerable to increases in the price of maize than they are to low crop production as a result of erratic weather patterns. In this assessment, LVAC looked into all the shocks that impact on household livelihoods such as production and supply changes in crop production and grazing, access to markets including employment markets, and changes in the price of food.

The LVAC analysis shows that the overall deficit faced by households in Lesotho is a result of a combination of the above shocks. The increase in the price of maize in the last one year in the range of 5- 25% has severely affected households access to food through purchases just as low crop production and loss of income as a result of depressed employment markets have contributed to the food access problems faced by rural households.

The price of one kilogramme of maize meal in the rural areas ranges from M3.5 to M4.5. In some more remote villages the price was found to be as high as M6. In the main centre shops, one could purchase a kilo of maize at M2.7 depending on the quantities purchased (the bigger the package the less cost per kilogramme). However, for most rural households purchasing in bulk is not possible so they opt for the small packages of 1- 2kgs thus paying much more. Using an average rural price of M4 per kg of maize meal, the assumed local rural price of one metric tonne of maize is M4000 or US \$615 (exchange rate of \$1 = M6.5).

Table 9 above shows the population of the 'poor' households facing a food/income deficit, the deficit as a percentage of annual food needs and the metric tonnes of maize meal required to offset all the deficit. Given that this is as much a food deficit as it is an income deficit, an income transfer required to offset the deficit has been calculated using the rural price of maize meal. A further calculation has been done for the total income transfer required per affected person and per average household of six persons.

This analysis should be helpful while looking at potential interventions that address poverty and failing livelihoods. A response with food aid alone would be inappropriate and could pose potential negative impacts on local markets.

Conclusions and Recommendations

- Although the current situation in Lesotho cannot be characterised as an emergency, most rural populations will face Food/Income deficits and interventions will be necessary. However, interventions clearly need to go beyond go food aid. This is because the current food access problems are a result of both low food production as well as increase in the price of staple (in most areas an increase of 15 – 25% in price of Maize meal), and depressed employment markets. Responding with only food aid will be inappropriate, create a potential for the disruption of the local food markets and most importantly not address the fundamental problem of declining incomes and increasing vulnerability.
- In this analysis, LVAC has factored in possible options for households to cope with the current problem. These coping strategies include additional sale of livestock and seeking additional employment. From a livelihoods perspective it is imperative that a system is put in place to monitor potential depletion of assets such as livestock as households try to cope with the various shocks.
- There is need for policies and programmes that address issues of poverty and vulnerability not just agricultural production and food aid. If not, there is a danger that peoples' 'normal' lives could be viewed as a long protracted disaster. For example erratic weather is now part of 'normal' patterns for Lesotho and it is high time a more proactive development approach is taken to address the issues of failing livelihoods.
- Key national information systems are still weak and timing of information provision is problematic. In addition there is inadequate analysis of the collected data. For example the food price data collected by the Marketing Department in the Ministry of Trade, Industry, Marketing and Cooperatives is not analysed to show trends and this limits use of such information. Another example is that as at mid June, The National Early Warning had not released the National Cereal Balance Sheet for 2004/2005 Marketing year. All this complicates current year analysis and increases the number of errors in the analysis. There is urgent need for improvements in our information systems especially in terms of timing and analysis.
- Little information is available on the nutritional status of children in the most affected areas. However, given the declining food security status and the high prevalence of HIV/AIDS, it is clear that there is a likelihood of deterioration in child nutrition nationally in the long term. It is recommended that the national nutritional surveillance system that has been piloted in a few districts for the last one year should be rolled out so as to get a better understanding of the nationwide nutrition picture.
- There is a need for appropriate Government Ministries to audit actual responses against initial early warning assessments. This will help in lesson learning and eventual improvements in our early warning systems. However, for this to happen there is need for critical monitoring of forecast estimates and actual events in for example the crop production sector. The absence of actual production figures for 2002/2003 for example, has forced LVAC to use the estimates of that period in this analysis. The potential errors in the estimates will undoubtedly affect the outcome of the current analysis.

- Analysis of food security by administrative units misses an important factor of attempting to understand how the different social economic groups are affected by shocks and thus inform design of appropriated interventions. There is need to establish a food security database that presents information by livelihood zone and social economic group to enable better understanding of vulnerable populations and inform programming decisions.

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