

SPECIAL REPORT

FAO/WFP CROP AND FOOD SUPPLY ASSESSMENT MISSION TO LESOTHO

12 June 2007



FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS, ROME



WORLD FOOD PROGRAMME, ROME

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Acronyms and Abbreviations

BOS	Bureau of Statistics
CHS	Community and Household Surveillance
CMA	Common Monetary Area
CSI	Coping Strategies Index
DAO	District Agricultural Office
DMA	Disaster Management Authority
EIU	Economist Intelligence Unit
FAO	Food and Agriculture Organization
FCS	Food Consumption Score
FNCO	Food and Nutrition Coordinating Office
Fewsnet	Famine Early Warning Systems Network
GDP	Gross Domestic Product
GIEWS	Global Information and Early Warning System
HEA	Household Economy Approach
HIV/AIDS	Human Immuno Deficiency Virus/ Acquired Immuno Deficiency Syndrome
LCD	Least Developed Country
LVAC	Lesotho Vulnerability Assessment Committee
IMF	International Monetary Fund
MDG	Millennium Development Goal
NGO	Non Governmental Organization
PRS	Poverty Reduction Strategy
RSA	Republic of South Africa
SACU	South African Customs Union
SIVCP	Special Initiative for Cash and Voucher Programming
WFP	World Food Programme

Mission Highlights

- The 2006/07 cropping season was characterized by one of the most severe droughts of the last 30 years. The amount of rainfall in the critical months of January-March was well below normal, and temperatures were higher than the long-term average.
- Average yields per hectare of maize and sorghum for the 2006/07 cropping season are estimated to have decreased dramatically by 42 percent and 25 percent respectively, as compared to the previous year. Furthermore, the decrease in area planted to these cereals in 2006/07, as compared to the last cropping season, was 15 and 20 percent down, respectively, compared to the last 5-years average.
- 2007 national cereal production is estimated at about 72 000 tonnes, which represents a drop of 42 percent from 2006, and 40 percent from the average of the previous 5-years. Maize production (50 825 tonnes) decreased by 51 percent, sorghum (11 182 tonnes) by 42 percent, and summer wheat (5 411 tonnes) by 4 percent compared to last year. A provisional forecast amount of 5 000 tonnes of winter wheat is also included.
- Cereal import requirements for the 2007/08 marketing year (April/March) are estimated at about 256 000 tonnes, of which 219 000 tonnes are expected to be imported commercially. With food aid stocks and pipeline at 7 000 tonnes as of 1 April 2007, there remains an uncovered deficit of around 30 000 tonnes which needs to be covered by additional government and/or international assistance.
- Many households have exhausted their coping capacity, and the escalation of grain prices, due to domestic shortages and rising maize prices in South Africa (the main supplier in the region), will further limit the access to market supplies by landless and urban populations, and deepen food insecurity.
- The worsening HIV/AIDS pandemic is undermining the economic resource base. In rural/agricultural areas, a visible lack of labour is observed, which may explain why some fields are left idle.
- The current situation is particularly serious for the poorest strata of the population. Crop failure not only reduces food supplies, it also reduces casual labour opportunities and thus, income earning opportunities to procure food from markets.
- The Mission estimates that about 401 200 vulnerable people face food insecurity during the 2007/08 marketing year, and will require approximately 30 000 tonnes of cereals and 6 700 tonnes of other foods, or equivalent in cash, to meet their minimum food consumption needs.
- Timely support is also needed with agricultural inputs, including seeds, fertilizers, and credit facilities, to rehabilitate production capacity for the 2007/08 cropping season.

1. OVERVIEW

Due to the accentuated drought conditions prevailing during the cropping season, the Government of Lesotho requested FAO and WFP to carry out a Crop and Food Supply Assessment (CFSAM) in order to estimate the 2007 cereal production, assess the overall food availability and forecast import requirements for the coming marketing year 2007/08 (April to March), including food assistance needs. The mission visited the country from 22 April to 5 May 2007.

The Ministry of Agriculture and Food Security, the Disaster Management Authority, the Ministry of Industry, Trade and Marketing, the Bureau of Statistics, and the Lesotho Vulnerability Assessment Committee (LVAC) cooperated fully with the mission. Discussions were also held with relevant UN agencies as well as with donor representatives, NGOs and grain importers. In close cooperation with the Government and the resident offices of FAO and WFP, the mission carried out an intensive field assessment covering all ten districts of the country. Observers from donor agencies (European Union, US embassy), SADC, and from NGOs accompanied the mission.

Meetings were held with District Agricultural Officers and staff from Government Divisions covering crops, livestock, extension, disaster management, nutrition and health divisions. Interviews and focus group discussions were conducted with village chiefs, farmers, households and traders. The field assessment obtained planted area and yield data for all major food crops from the district agricultural offices, which were cross-checked against information from farmers, traders, NGO and donor project staff and remote sensing data from FAO/GIEWS. Crop inspections, crop cutting experiments, and transect recordings of crop performance were conducted en route to audit the information received. Livestock and pasture conditions were observed and market surveys were carried out in selected markets to fine-tune the production estimates

The Mission observed that a combination of high temperatures and low rainfall created one of the worst drought situations ever experienced in the country. Particularly, the months of January, February and March 2007 were found to be very dry causing large scale damage to growing crops. The drought was most severe in the lowlands, where the main production areas are located.

Overall crop yields of the 2006/07 cereal crops are expected to be even lower when compared to the already low yields of 2005/06. The average yields of maize, sorghum and wheat for the cropping season 2006/07 are estimated to be 0.43, 0.42, and 0.52 tonnes/ha, respectively. Compared to last years cropping season 2005/06, productivity in yields has decreased dramatically for maize and sorghum by 42 percent and 25 percent respectively, and just slightly by 4 percent for wheat.

The general trend also reveals a decline in planted area of cereals over the past few years, with potential farmland left uncultivated mainly due to the uncertainties of agro-climatic conditions, shortage of farm labour and lack of cash (capital) for inputs and investment. In the lowlands, in particular, large areas were not planted despite the distribution of seeds and subsidized fertilizers. The decrease in planted area in 2006/07 as compared to the previous cropping season was significant, estimated at some 15 percent, and some 20 percent compared to the 5-year average.

2007 national cereal production forecast is estimated at about 72 000 tonnes which represents a substantial shortfall of 42 percent as compared to 2006 harvest, and 40 percent as compared to the last 5-year average. Total cereal production is composed of 50 825 tonnes of maize, 11 182 tonnes of sorghum, 5 411 tonnes of summer wheat and a forecast of 5 000 tonnes of winter wheat to be harvested later this year.

The national food balance sheet for the marketing year 2007/08 (April/March) shows an uncovered deficit of 30 000 tonnes of cereals including 25 000 tonnes of maize and 5 000 tonnes of sorghum respectively which would need to be covered by government and/or donor assistance. Maize can be easily substituted for sorghum in the Lesotho diet.

Despite current very high prices for maize, farmers are not expected to respond by increasing production in the forthcoming secondary cropping season mainly due to lack of resources. In addition, production and marketing costs, particularly increasing transport costs, prevent many farmers to take advantage of the formal market, as the millers do not operate collection centres due to the small quantities of grain being produced for the formal market.

The current situation is particularly serious for the poorest households who depend heavily on in-kind payments and incomes from agricultural activities. These households purchase most of their food requirements in the open market, as their own production only provides a supplement in the months following the harvest period. This marketing year, the crop failure will not only impact the livelihoods of these vulnerable groups by reducing access to food from own produce, but also will reduce casual labour opportunities in agriculture.

Furthermore, while poverty in Lesotho is very closely associated with the absence of employment opportunities, the worsening HIV/AIDS pandemic is undermining the economic resource base. In the rural/agricultural areas, in particular, a visible lack of labour is observed which results in some fields being left idle, with direct consequences on deepening poverty and vulnerability.

The most serious concern from a food security perspective is the loss of purchasing power as a consequence of the dramatic escalation in maize prices. South African grain prices have increased by almost 400 percent in only two years. Analysis of prices at household level reveals that there has been a steep upward trend in the past two years, while the price of the South Africa maize, which Lesotho structurally imports, has increased even further reflecting two consecutive reduced harvests in that country. Furthermore, it is expected that this increasing price trend will continue as household stocks run out and the main importers adjust their prices to reflect rising import costs. Given that vulnerable households are the ones depending most heavily on markets to access food, the price situation will put serious stress on their livelihoods.

Together with the LVAC, the Mission estimates that a total of 401 200 people will be in a food deficit during the 2007/08 marketing year. Approximately 30 000 tonnes of cereals (mostly maize) and additional 6 700 tonnes of non-cereals, or cash equivalent, will be needed to meet the 2 100 kcal minimum daily requirement.

2. SOCIO-ECONOMIC CONTEXT

Lesotho is a mountainous, landlocked country completely surrounded by the Republic of South Africa (RSA). The country's land area is approximately 30 350 square kilometres, three-quarters of which is made up of highlands and the remaining one-quarter is lowlands. The highlands rise to nearly 3 500 meters in the Drakensberg/Maluti Mountain range, whereas the lowlands are situated at altitudes between 1 500 and 2 000 metres. Arable land is limited and less than 10 percent of the country is presently under cultivation. The more urbanised lowlands are better developed than the rural highlands where winters are severe, with heavy snowfalls that often cut off the population from basic health services and food supplies. However, the mountains are also repositories of the bulk of the natural resources, including water, gemstones and critical biodiversity. With a per capita income US\$635 at the nominal rate in 2005, the country is classified as one of 49 Least Developed Countries (LDC). In the Human Development Report for 2005, it was ranked 149 out of 177 countries on the UNDP Human Development Index.

2.1. Macroeconomic situation¹

The country has limited natural resources and a narrow production and export base. Around 80 percent of its population is engaged mainly in agriculture and informal sector activities. However, agriculture hardly reaches 16 percent of GDP (down from over 25 percent in the 1980s), with services (40 percent) and manufacturing/industry (44 percent) being the most important sectors of the economy. The garment sector in particular plays a critical role in generating employment, output, and exports. Lesotho also exports diamonds, wool, and mohair. Overall, the economy is highly open, with imports amounting to about 90 percent of GDP, and depends heavily on inflows of workers' remittances (estimated at around 30 percent of the country's Gross National Product) and receipts from the Southern African Customs Union (SACU). Lesotho is also a member of the Common Monetary Area (CMA). The country is not only geographically surrounded by South Africa, but also economically integrated with it.

Overall, Lesotho has made good progress toward macroeconomic stability in recent years, and its fiscal balance has been in surplus since 2003/04. This is largely attributed to windfall SACU receipts. As a result, the current account deficit has narrowed, and gross international reserves have increased to the equivalent of almost six months of imports in 2006, more than double of the IMF's recommended minimum level of three months. However, fiscal management is expected to become more challenging, with SACU revenues falling from their high levels and with greater pressure to increase expenditures. Real economic growth in 1994-2004 averaged 3.3 percent, allowing for a moderate increase in per capita GDP. However, real GDP growth decreased to about 2 percent in 2004/05 and further to 1.3 percent in 2005/06, reflecting the adverse impact of external shocks on manufacturing and continued drought on agricultural output followed by excessive rains in early 2006 that also damaged roads and bridges in rural areas. Furthermore, the slow pace of job creation in Lesotho, compounded by the continued decline in mining jobs for migrant workers in South Africa, has induced high unemployment – over 25 percent. The end of the Multi-Fibre Agreement led to stiff competition from Chinese textile manufacturers in 2005 and disinvestment in the sector. However, there was some improvement during 2006 as the government introduced additional tax incentives and the textile industry initiated efforts to improve productivity. The sector saw a moderate recovery recently with the entry of new investors following a halt in the appreciation of the local currency (Maloti) and the signing of a bilateral agreement that restrains exports from China to the US market. In addition, the reopening of the Letseng la Terae mine led to the revival of diamond mining, which is making an increasingly important contribution to GDP. As a result, the Economist Intelligence Unit estimated the real GDP growth at 4.5 percent for 2006.

Due to the high demand for capital, intermediate and consumer goods, Lesotho's external trade shows a large structural imbalance. However, the increase of manufactured exports in recent years has reduced the trade deficit to around US\$500-600 million. The main destinations of Lesotho's exports are the United States (75 percent - mostly textiles) and South African Customs Union countries, while the main sources of imports are South Africa (73 percent) and Asian countries (24 percent).

The outstanding public debt increased by 11 percent in 2006 due to a 12.5 percent growth in foreign debt. As a ratio of GDP, public debt stood at 50 percent. External debt constituted 43 percent of GDP.

¹ Information and data in this section are partially derived from reports of the Lesotho Central Bank, Lesotho Bureau of Statistics, Economist Intelligence Unit (EIU) and the World Bank.

Inflation in Lesotho, as in many of the smaller countries surrounded by a large one, is strongly influenced by the South African inflation rate, especially since the Maloti is pegged at par with the Rand which is also a legal tender in the country (thus ruling out any ability to pursue an independent monetary policy). Inflation began to accelerate towards the end of 2001, owing mainly to increases in the prices of foods, beverages and tobacco, which have a heavy weight in the consumer price index (over 40 percent). The upward trend continued into 2002 as food shortages in the region intensified, with average inflation reaching nearly 34 percent. But the improved food supply situation of 2003, 2004 and 2005, put inflation on a consistently downward path with headline inflation reaching 3 percent towards the end of 2005. This downward trend was reversed in 2006, as food prices rose sharply in response to higher inflation in South Africa, with inflation reaching 6.9 percent by November 2006. On the back of lower international oil prices, annual inflation stands at 5.9 percent in March 2007 and it is expected to remain stable over the months to come. Similar to the South African Rand, the Lesotho national currency depreciated against the major currencies in 2006, with the Maloti falling against the US\$. However, the national currency has recently recovered slightly, and stands at 7.01 Maloti for the Dollar in April 2007.

As stated above, migrant labour in South Africa is an important source of employment for Lesotho citizens (Basotho). Private consumption growth in Lesotho is partly driven by wage developments in the mining sector and other labour markets in South Africa, and by the extent of the resulting remittances. However, the number of Basotho employed in South African mines fell from a high of 127 000 in 1989 to a low of 47 000 in 2005, mainly because of the declining profitability of gold mines, which absorbed about 80 percent of Basotho migrants. However, following a recovery in gold prices in 2006 and a subsequent increase in activity in a number of South African gold mines, the overall number of Basotho employed there increased to 52 000 in 2006. Nevertheless, it is estimated that other economic activities in South Africa such as domestic labourers are becoming increasingly important for Lesotho migrant workers.

Table 1: Lesotho - Economic Performance Indicators

Indicator	2002	2003	2004	2005	2006
GDP (US\$ bn)	0.7	1.1	1.4	1.5	1.4
Real GDP growth (%)	3.5	3.3	2.3	1.2	4.5
Exports (US\$ m)	357	475	707	650	750
Imports (US\$ m)	763	994	1 302	1 260	1 309
Current account balance (US\$ m)	-142	-135	-76	-44	14
Consumer price inflation (%)	34	6.7	5.0	3.4	5.0
Foreign Exchange Reserves (US\$ m)	406	386.5	406.4	460.3	501.5
Exchange rate (M: US\$1)	10.5	8.6	10.5	7.6	6.5

Source: EIU, Lesotho Central Bank.

2.2 Population estimates

Based on the recent Population Census, the Lesotho Bureau of Statistics (BOS, April 2007) estimated the country's population in 2006 at 1 872 721. Applying an annual growth rate of 0.5 percent, the mid-marketing year 2007/08 population is estimated at 1 882,085 of which about 82 percent live in rural areas. Most inhabitants are of Basotho ethnic origin, with small numbers of AmaXhosa in the south-west of the country. It is estimated that around 0.5 million Basotho are working in South Africa at any point in time, although their numbers have tended to fluctuate in line with job opportunities, and as families of mine workers with permanent-residence status have opted to live there.

Even if its exact impact remains uncertain, the HIV/AIDS pandemic has not only contributed to a sharp decrease in overall population growth but also to the fall in life expectancy from about 60 years in 1996 to 35 years in 2004. This high mortality in the economically active population in Lesotho is bound to have a significantly adverse impact on the economy.

Regarding the age structure, about 36 percent of the population is less than 15 years old, 58 percent is aged 15-64 years, while 6 percent is 65 years and older. Hence, the demographic challenges facing the country are daunting, with more than 40 percent of the population age-dependent. Women constitute 51 percent of the population. Urban areas are growing by about 6 percent per year, owing to increasingly poor agricultural yields and a lack of alternative employment opportunities in rural areas. As for related internal migration, the population residing in the lowlands increased to 56 percent of the total population in 2001 from 47 percent in

1976². Lesotho is, thus, witnessing considerable internal migration from the rural areas, particularly the mountains, to the lowlands where most of the economic activity takes place, which is essentially being influenced by factors such as unemployment and population pressure on agricultural land in rural areas. Rapid urbanisation leads to problems such as proliferation of informal settlements, insecurity and environmental degradation. To curb internal migration, Government is promoting rural development, particularly in the mountain areas, through the provision of rural infrastructure, such as roads and electricity.

2.3 Poverty and HIV/AIDS

Despite relatively strong economic growth performance in recent years, the incidence of poverty remains high. The leading cause of poverty in Lesotho is rising unemployment and underemployment resulting from a series of structural changes which began in the early 1990s, with the decline of mining activity in South Africa, and aggravated by the HIV/AIDS pandemic.

Lesotho does not have up-to-date data on the poverty situation. However, recent estimates by the Government and development agencies show widespread poverty, with the proportion of households living below the poverty line exceeding 55 percent, out of which about 40 percent are extremely poor (African Development Bank). The distribution of income is highly uneven, especially between the rural and urban areas - the Gini-coefficient, which measures income inequality, is estimated at 0.66 out of a theoretical maximum of 1. Virtually all national household surveys in Lesotho show striking variations of poverty in relation to gender, household size, livelihood patterns, access to basic services and geographic location. Of these, perhaps the greatest determinant of variation is geography. Several studies have consistently shown that the mountain areas of Lesotho, which are home to approximately one-third of the population, are significantly poorer on almost all selected indicators. This is confirmed by the 2002 Core Welfare Indicator study which used an assets approach. It shows that extreme poverty is concentrated in the rural areas not only as a proportion of the population but also in absolute numbers. A weak and limited agricultural/natural resource base and scarce income earning opportunities in rural areas are the main cause of rural poverty. Second only to geography is gender. Currently, about one-third of households are officially headed by women who are single, divorced, widowed or abandoned by their husbands, a proportion higher than in most other sub-Saharan African countries. Such female-headed households have the highest incidence of poverty (about two-thirds), well above the national average. Female-headed households are particularly vulnerable because they are typically headed by ageing widows, who may have lost the capital they once possessed, are less likely to own agricultural assets, such as livestock (35 percent, compared to 55 percent of male-headed households), and have difficulty securing cash incomes.

While poverty in Lesotho is very closely associated with the absence of wage employment and income, the worsening HIV/AIDS pandemic is undermining the economic resource base especially of the weaker strata of the economy particularly in rural and agricultural areas. This generally leads to lack of labour for essential agricultural activities and even some fields being left idle³ further deepening poverty and vulnerability. The World Bank estimates that by 2015 the GDP of Lesotho will be reduced by almost one-third as a result of HIV/AIDS. The prevalence of HIV/AIDS has increased from almost no officially reported cases in 1992 to an estimated infection rate of 24 to 31 percent (depending on the data source) of the adult population in 2004, with an estimated 40 percent infection rate in the capital, Maseru. The upward trend shows no signs of abating. There were an estimated 97 000 AIDS orphans in the country in 2005, up from 70 000 in 2003. The effects of the disease in rural areas worsened the impact of the drought in 2002 and 2003. Migrant workers also contribute to the spread of HIV/AIDS. The Government has acknowledged the seriousness of the situation and in March 2004 launched a programme aimed at halting the spread of the disease, which has remained a key aspect of policy in subsequent years. Senior government figures led the way in taking HIV tests, as part of ambitious plans to implement a nationwide testing programme aiming to cover the whole population. However, the response was poor, and few people actually visited the testing centres. Thus, in late 2005, plans were put in place for health professionals to begin free testing carried out on a house-to-house basis. Lack of resources remains a severe constraint, however, including the problem of access to affordable supplies of anti-retroviral drugs and a shortage of health workers. Also problematic are widespread conservative attitudes and the stigma surrounding the disease.

² UN Common Country Assessment for Lesotho, December 2004 Report.

³ The incident of agricultural fields left idle is also a consequence of lack of cash and of falling agricultural profitability.

2.4 Sector development policies

Within the Government's development agenda, the priorities and strategies for promoting economic growth and reducing poverty are outlined in the *Poverty Reduction Strategy (PRS)*. The PRS, which was endorsed by the Government in November 2004, presents Lesotho's plan to achieve a significant reduction in the number of people living in extreme poverty and to promote equity-based growth. It aims to achieve this by linking policy, planning and budgeting processes and making sure that there is synergy between key initiatives such as the *National Vision 2020*, the *Millennium Development Goals (MDGs)*, national goals and PRS priorities. While the *Vision* articulates the level of development Basothos aspire to reach by 2020 and the MDGs reflect long-term goal and targets to be achieved by 2015, the PRS provides a three year (2004/5-2006/7) implementation strategy for the attainment of those goals and targets. Although the finalization of the PRS was substantially delayed, the Government regards its programmatic content still as appropriate for its overall medium-term development agenda. The overarching goal of the PRS is to achieve a sustainable broad based improvement in the standard of living for the current generation of Basotho people. The PRS seeks to achieve poverty reduction and attain the MDGs through rapid and sustained economic growth, which would be driven by the private sector and facilitated by appropriate Government interventions and policies in order to create employment and income-generating activities. Further, the PRS goals include improving access of the poor to social infrastructure and enhancing public sector performance to facilitate the implementation of its priorities. In order to achieve the PRS goals, widespread consultations identified national priorities and critical cross-cutting issues for poverty reduction. Some are indicated below.

Agricultural production and food security: Food insecurity is considered a defining feature of poverty in Lesotho. For this reason, the Government's objective is to improve food security by, among other things, increasing maize production to 140 000 tonnes, and wheat and sorghum output to 30 000 tonnes each in order to reduce the proportion of households with food insecurity from 36 percent to 32 percent within three years. This is supposed to be achieved by encouraging the adoption of appropriate farming practices, developing appropriate irrigation systems (by nearly doubling the area under irrigation to 150 hectares), strengthening extension services, ensuring an efficient land tenure system, and improving marketing of agricultural products.

One of the Government's objectives is to create employment by facilitating economic growth through the development of the private sector. The lack of meaningful employment is identified by Basotho people as the most fundamental cause of poverty. Policies being pursued would include: (i) attracting domestic investment and foreign domestic investment by reducing administrative procedures for business licensing, provide basic infrastructure and improve workers' productivity through training; (ii) supporting local business by building entrepreneurship related capabilities and skills through appropriate courses as well as developing sustainable market opportunities; (iii) increasing support to small, micro and medium enterprises (SMMEs); and (iv) promoting the optimal use of Lesotho's natural resources.

Infrastructure development of is seen by the government not only as a way for opening up the rural areas – especially the mountainous parts which still lack good roads and reliable water, electricity and communication facilities - for investment, but also as a means of creating employment in the rural areas during the construction phase.

Development aid: External assistance to Lesotho (ODA of around US\$75 million in 2004) has declined substantially from its levels in the 1980s and 1990s, due to a number of factors: (i) Many historical supporters moved both office and focus to South Africa following the end of the apartheid; (ii) The recent concentration of individual donors on smaller sets of countries has often excluded Lesotho; (iii) Lesotho receives very little aid from regional programmes; (iv) Lesotho was not eligible for debt relief; and (v) Development Partners' preference for large projects makes for few opportunities in Lesotho. Today, 5 percent of Lesotho's annual budget, or some Maloti 200 million, is funded by external grants, a small proportion relative to other LDCs. The budget records 19 discrete donors, of which the seven leading donors provide 95 percent of external grant assistance. Development Partners also fund a larger number of programmes which are managed separately and do not appear in the Annual Budget. The quantity of grant flows has not changed substantially over the past five years. The cost of the still unfunded investment programme detailed by the above PRS, updated by the estimates being presented at the Donor Round Table Conference in November 2006, demonstrates that the investment need is beyond what Government can reasonably expect Development Partners to provide. However, it is equally evident that Lesotho is in need of a substantial increase in aid funding if it is to make progress toward poverty reduction and achievement of the Millennium Development Goals. According to current medium term forecasts, "external grants would need to be more than doubled over the next five years only to offset the effects of declining

customs revenue” – which is to say, a doubling of external grants could sustain the current level of expenditure, without necessarily funding new programmes in poverty reduction. Given these forecasts, it seems clear that Government will depend on the long term cooperation of Development Partners to continue to fund Lesotho’s development needs.

3. MARKET CONDITIONS FOR CEREALS

3.1 Marketing of cereals

In Lesotho the three main food crops grown are maize, wheat and sorghum. With on average 70-80 percent of total production, maize is the major cereal cultivated. Although maize production in the country has been on the decline in recent years, it remains the country’s most prominent staple food, constituting an estimated 80 percent of the rural diet. The bulk is produced in the lowlands whereas the mountain areas produce most of the wheat crop. Leribe, Maseru, Mafeteng and Berea in the west are the four leading districts in maize production. Jointly they constitute about 75 percent of the total national production. The majority of maize farmers are small-scale subsistence farmers with very low productivity and average yields of less than 1 tonne/ha. If used at all, improved inputs for maize production (hybrid seeds, fertilizers, pesticides, etc.) are imported from South Africa. They are significantly more costly in Lesotho than in South Africa thereby raising production costs to Basotho farmers and lowering their competitiveness against cheaper maize imports from South Africa. In addition to being more expensive than imports, domestic maize production is very low even during good years covering just about 30 percent of total national consumption requirements. Lesotho’s annual cereal domestic production averages around 110 000 tonnes. This corresponds roughly 30 percent of the country’s estimated annual cereal requirements of around 360 000 tonnes. As Lesotho has an open economy it allows free flow of goods and services across its borders with South Africa. This has greatly facilitated the vital role of commercial imports in bridging the food deficit. Commercial cereal imports continue to cover the greater part of the cereal gap, with food aid imports through WFP, C-SAFE (Consortium for Southern Africa Food emergency), and other channels like religious based organisations and, occasionally, government-to-government bilateral arrangements, making up the remaining deficit. Furthermore, a significant but not quantifiable proportion of the cereal deficit is believed to be covered by the informal cross-border imports (conducted on a private and small-scale individual basis).

Overall, even if agricultural production were to increase over time, Lesotho is unlikely to become self-sufficient in food. Maintaining the efficient and cost-effective mechanism for importing food will depend on the continued membership of the country in SACU which reduces barriers to the movement of cereals between South Africa and Lesotho, the extent of competition among importers/traders, as well as costs due to economies of scale achieved across the border. This relatively cheap and reliable access to imported food, in the long run, is a significant advantage for Lesotho compared to a number of other countries in Southern Africa. With respect to maintaining strategic grain reserves, this might be suitable for other countries in Southern Africa, but for a land-locked country with high import costs, Lesotho’s access to South African grain implies that costs of maintaining such a reserve, which might be used once in a decade, are likely to surpass the benefits.

With respect to the internal market, the only formal market channel for farmers in Lesotho is that of commercial millers located in the lowlands. The two main industrial milling companies are the Lesotho Flour Mills (49 percent government owned) in Maseru and the Lesotho Milling Company (40 percent government owned) located in Maputsoe. A few hammer mills buy local grains immediately after harvest during good years. The produce is then stored to be milled and sold during the December-February period when the demand is high, as many households will have exhausted their own stocks. However, the majority of hammer millers only provide a service where villagers mill their grain crops for home consumption.

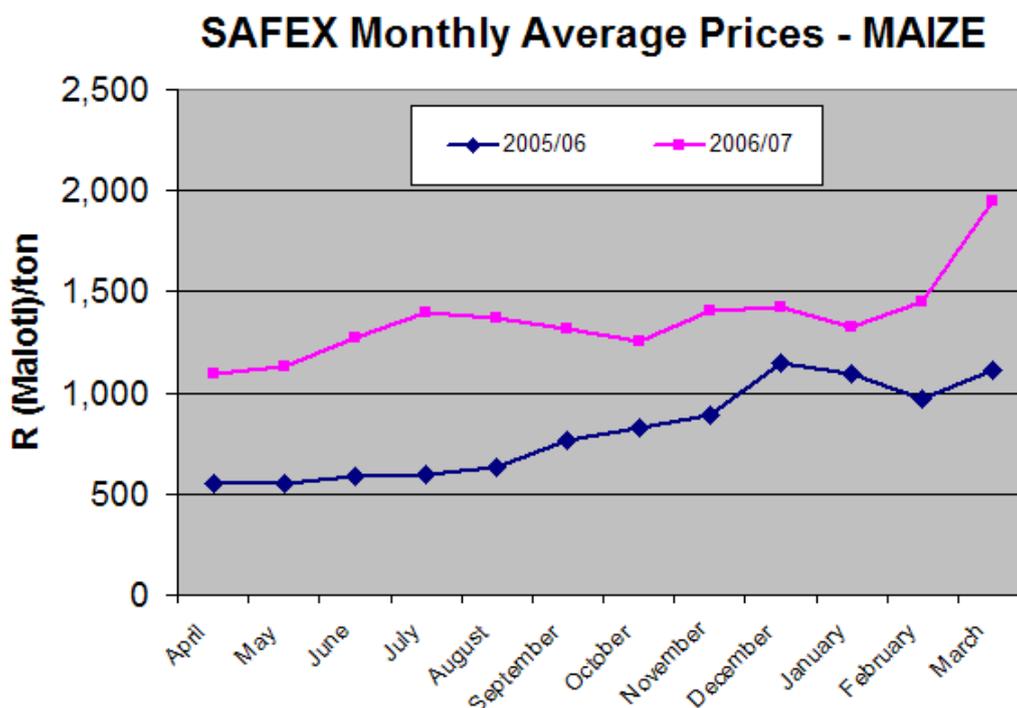
In general, after harvesting farmers are free to take their surplus crop (most cereal producers are however subsistence farmers with no surplus to sell) to the two main milling companies where the produce is weighed, graded and then purchased. Nevertheless, marketing costs, particularly transport costs, prevent many remotely placed farmers to take advantage of the formal market, as the millers do not operate collection centres because of the small quantities of grains being produced for the formal market. The grading of grains by millers follows the South African approach which considers factors such as moisture content, screening, and colour of kernels. Locally produced grain crops are said to be of lower grades, the main factor limiting the demand by the millers. Despite the current escalation of grain prices, millers do not believe local farmers will respond by increasing production in the short term mainly because of lack of resources. As a result of low local supply, both industrial milling companies are heavily dependent on grain imports which they source through Seaboard in Durban.

3.2 Price development

As the bulk of maize in Lesotho is imported from South Africa, the related prices in the country are driven by the South African market. However, the respective retail prices in Lesotho are in general lower than the whole sale prices in South Africa. This is to some extent explained by the fact that the major grain importers purchase maize stocks in South Africa at the lowest possible price. Due to the gradual release into the local retail system, the respective market prices are no longer directly determined by the actual price changes in South Africa. Nevertheless, if importers bring in maize at high prices – as has been the case in the last months of the marketing season 2006/07 – major price peaks are experienced also on the local retail markets of Lesotho.

In the absence of reliable average national market price data sources in the country (due to lack of resources, the Department of Marketing had to abandon the collection of such data in 2004), the prices on the South Africa Futures Exchange (SAFEX) can be used to trace the price development of the main cereals traded in Lesotho (see table below). Since the start of the 2006/07 marketing season in April, maize prices have been fluctuating considerably. However, the trend has generally been upwards, with some of the highest levels recorded in the last three months (January-March 2007), compared to the past marketing season. The price has risen from an average of 1 100 Rand per tonne in April 2006 to over 1 900 Rand per tonne in March 2007 (end of hunger season), representing an increase of nearly 80 percent within a year. The last time average prices went above 1 400 Rand per tonne was in 2002, at the height of the 2002/03 Southern Africa food crisis.

Figure 1: SAFEX Average Monthly Prices for South African Maize



With respect to the region overall, continued dry conditions in parts and excessive rains in others have reduced South African maize production this year. Preliminary forecasts released for South Africa indicate a maize crop only slightly larger than last year's poor level. Except for South Africa, the affected production areas are structurally grain deficit and depend on imports, particularly from South Africa. Therefore, drastic shortfalls in the maize harvest in RSA will have critical repercussions not only domestically but also on the neighbouring countries, as South Africa's maize triangle produces about 50 percent of the maize in Southern Africa. The late May estimate of South Africa's maize production is for 7.1 million tonnes, well below the average level of about 9.6 million tonnes, and with low carryover stocks maize availability in South Africa can be expected to fall to one of its lowest levels in recent years affecting food supply and security in the region.

As the price for maize in RSA is conditioned by both prospects for domestic production and international prices, SAFEX values have increased to record levels in the recent months as U.S. maize export prices have risen significantly, boosted by a surge on the use of maize for production of ethanol in the United States.

This has a spill over effect in Lesotho. The March average nearby SAFEX price for white maize had risen to 1 930 Rand per tonne from about 1 350 Rand in January. Prices this year are much higher than the same periods last year.

4. AGRICULTURAL PRODUCTION IN 2006/07

4.1 The agricultural sector

The contribution of the agricultural sector to the gross domestic product and export earnings is estimated at 16 and 15 percent, respectively. Lesotho is segregated into four main agro-ecological zones, lowlands, foothills, mountains, and the Senqu river valley. About 25 percent of Lesotho's land area has potential for agricultural development and the socio-economic importance of the sector is high. Agriculture is the mainstay of the rural communities and provides livelihoods support to over 70 percent of the country's population. Crop production is virtually all rainfed and accounts for 70 percent of the agricultural GDP while livestock production represents 30 percent. Crop production is characterized by low input - low output traditional rain-fed farming systems which in the case of Lesotho are inadequate to provide for food self-sufficiency at the household level. Agricultural practices are characterized by draught animal power (if available) for seedbed preparation, manual husbandry operations, on-farm produced inputs, and household labour. The increasing incident of HIV/AIDS however has reduced availability of family labour which is becoming a major constraint in subsistence farming. The most important crops cultivated by the majority of smallholder farmers are maize, sorghum and wheat covering about 80 percent of the total planted area. Whereas most farmers are subsistence producers, commercial farmers involved in market oriented production account for about 10 percent of total output.

The livestock sub-sector is based on the husbandry of diverse species of animals including cattle, sheep, goats, poultry, pigs and rabbit. Through the sale of live animals and products like wool and mohir, livestock play a significant role in the economy of rural livelihoods. However, the prevailing free grazing system has led to overgrazing of the palatable species and degradation of natural pastures. The situation is exacerbated by the lack of sustainable grazing land management practices. Furthermore, livestock theft continues to be one of the serious problems faced by the farming communities, affecting not only the household asset base but also the seasonal land preparation practices.

Overall, agricultural production is burdened by a number of difficulties, such as erratic rains and recurrent droughts, rugged topography, severe soil erosion, and lack of sustainable land management practices. The dependency on one single crop, mono-cropping of maize, makes very vulnerable household farmers, especially those who live in the marginal and drought prone areas of the country. The main challenges of agricultural development in Lesotho are to reverse the negative trend in per capita food production, through increasing crop and livestock production and related income, based on the effective and sustainable use of natural resources.

With respect to basic data to be used in crop assessment, a consistent constraint became apparent during the Mission's work. Availability and reliability of quantitative information on planted area by crop and district, input utilization, and livestock numbers is very limited, not only at the national but specifically at the district level. This concerns both, government ministries as well as the Bureau of Statistics, which was not in a position to provide reliable data with respect to the current 2006/07 basic agronomic parameters.

4.2 Agro-meteorological conditions in 2006/07

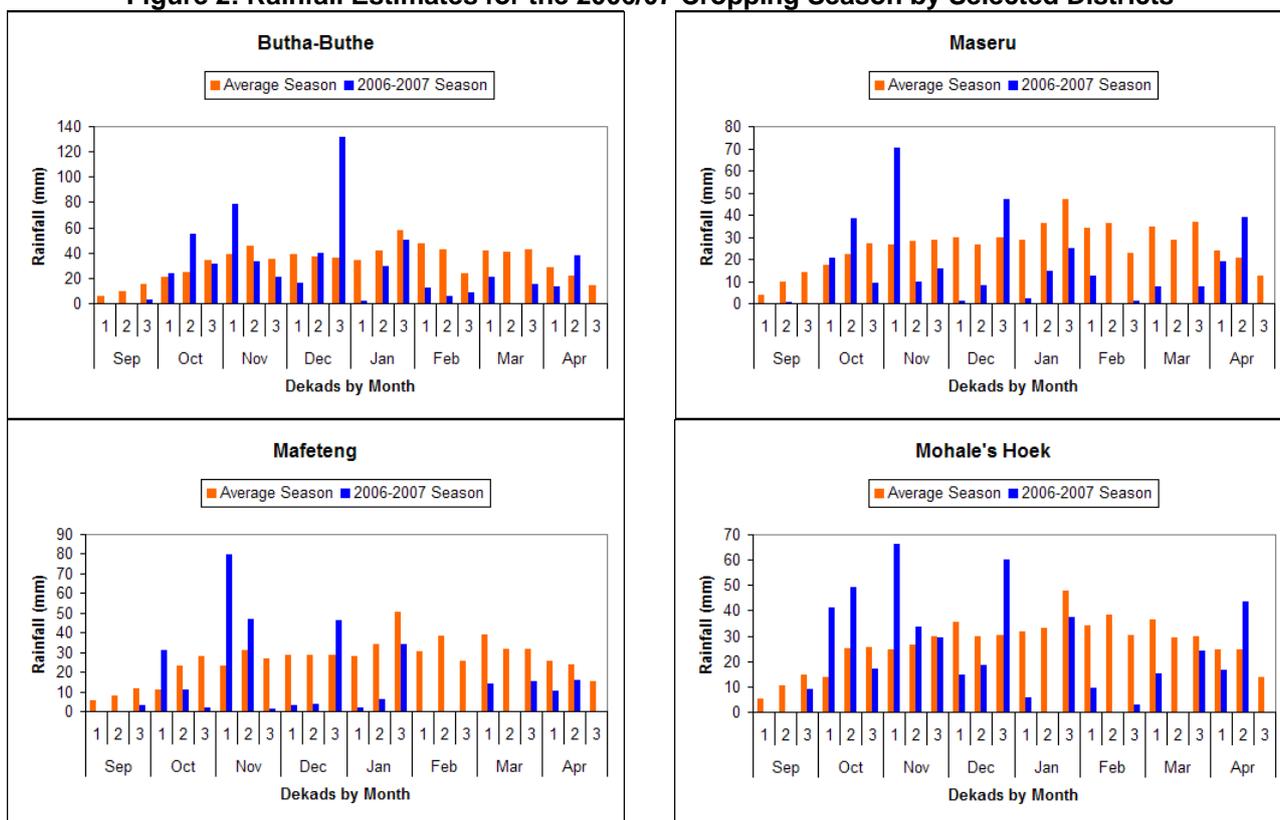
The 2006/07 cropping season was characterized by of the most severe droughts in recent years. The amount of rainfall was well below normal and temperatures were higher than the average of the last five years. Precipitation in the month of February 2007 was the lowest recorded over the past 30 years. Time series show that only the month of February 1968 registered lower precipitation, and some weather stations recorded this year even lower rainfall values as compared to the February 1968 negative record. In general, January, February and March 2007 were found to be very dry months causing large-scale damage to growing crops. According to the Lesotho Meteorological Services Agency, the decreasing rainfall values during the first three months of the year may also affect the ground water recharging capability of the country.

As shown in Figure 2 below, seasonal rainfall started with about normal conditions and allowed farmers to plant cereals on time. However, this was followed by prolonged dry spells, which continued from December 2006 up to April 2007. The absence of rains in the critical stage of the plant growth phase (highest moisture

requirement for flowering and seed formation) – January to March - is greatly responsible for the irreversible damage caused to yields, with the excessive heat worsening the accentuated drought that prevailed since January 2007.

Overall, the serious drought conditions coupled with excessive heat had a negative impact on agriculture (crops and livestock), food and water availability. The drought was most accentuated in the lowlands, where the main production areas are located. The effect of the drought on the foothill areas, which are of relatively lower agricultural importance, was found to be less significant. Compared to the production areas in the foothills and to some degree in the northern lowlands, cereal crops in the southern lowlands including Maseru and Berea – i.e. the most important cereal production areas of the country - were the most affected ones, with respective crop conditions ranging from poor to complete failure. The mountain areas were the least affected, and the effect of the dry spells on livestock was not as critical as compared to crop production (see also Section 4.8).

Figure 2: Rainfall Estimates for the 2006/07 Cropping Season by Selected Districts



Source: Lesotho Meteorological Services

4.3 Agricultural inputs and practices

Due to limited resources, there is an increasing tendency to minimize land preparation costs by planting fewer fields, or leaving some of the fields idle. In areas where animal traction is the principal form of ploughing, dry soils are an additional constraint to good and timely planting as well as to good crop emergence and establishment. However, the majority of the land in the main cropping areas of the lowlands (northern in particular) is ploughed with tractors. In some districts such as Maseru there are over 200 privately owned tractors providing rental service to farmers. The government plays a significant role in the regulation of prices for ploughing services, but has minimal direct involvement in renting tractors. Although many farmers of the northern lowlands showed interests in growing wheat as an alternative to maize, production is constrained by the shortage of combine harvesters. Since farmers in these areas do not use sickles, harvesting and threshing machines would be necessary to promote increased wheat production.

The majority of farmers use on-farm produced, open pollinated seed varieties, whereas many farmers in the northern lowlands, and especially the commercial producers, utilize hybrid seeds. In general, the utilization of hybrid seed is related to the use of chemical fertilizer.

The utilization of chemical fertilizers varies from district to district and farmers in high potential cereal production areas of the northern lowlands (Leribe, Butha-Buthe, Maseru and Beria) use more chemical fertilizers as compared to the low potential mountain areas of the south. The use of manure in the low productive areas of the south is also not significant. During the marketing year 2006/07 the government has been subsidizing chemical fertilizer and supplied a total of 3 998 tonnes either directly to farmers or indirectly through traders. The main types of fertilizers used by farmers include 3:2:1 (25), 2:3:2 (22) and LAN (28). Furthermore, some NGOs working in collaboration with the Ministry of Agriculture have been providing subsidies in order to promote conservation farming and utilization of organic fertilizers like compost and manure.

However, due to the critical cash flow situation of most farm households, the use of chemical fertilizer is becoming more and more marginal. Fertilizer use among the vast majority of households that produce exclusively for home consumption was again very limited this year. Some households mix very small amounts of chemical fertilizers with some manure and apply them at well below optimal doses to their fields. These low doses, applied to nutrient deficient soils, are resulting in poor crop performance and depressed yields.

4.4 Area planted

The three main cereal crops grown in Lesotho include maize, sorghum and wheat, covering about 80 percent of the total cropped area. Maize being the single most dominant crop accounts for about two-third of the crops grown by farmers annually. The table below shows the total area planted with cereals during the 2006/07 cropping season in comparison with the average of the past 5-years. There is a decline in planted area of cereals over the past few years, with potential farmland left uncultivated mainly due to the uncertainties of agro-climatic conditions, shortage of farm labour and lack of cash-flow for inputs and investment. In the lowlands, in particular, large areas were not planted despite the distribution of seeds and subsidized fertilizers. The decrease in planted area in 2006/07 as compared to the last cropping season of 2005/06 was significant with 15 percent, and compared to the 5-years average even more with 20 percent.

Table 2: Lesotho - Total Cereals - Area Planted ('000 hectares) in 2006/07 compared to 5-year average

DISTRICT	2001/02	2002/03	2003/04	2004/05	2005/06	5 years average	2006/07	2006/07 as percent of average
Butha-Buthe	6.6	10.2	9.7	9.1	8.6	8.8	8.4	95
Leribe	36.0	39.6	29.8	30.5	27.4	32.7	21.3	65
Berea	28.7	29.5	26.8	29.7	25.3	28.0	19.7	70
Maseru	26.6	31.8	30.6	30.2	24.7	28.8	18.7	65
Mafeteng	34.1	32.1	31.4	28.8	28.0	30.9	26.3	85
Mohale's Hoek	18.5	19.4	23.3	24.2	14.5	20.0	10.8	54
Quthing	8.4	11.2	15.0	14.0	13.3	12.4	11.5	93
Qacha's Nek	4.8	4.6	2.1	7.8	8.0	5.5	7.2	132
Mokhotlong	12.1	10.8	12.3	10.5	10.8	11.3	11.8	105
Thaba-Tseka	16.4	12.4	15.8	23.4	23.6	18.3	20.8	114
LESOTHO	192.2	201.6	196.8	208.2	184.4	196.6	156.5^{a/}	80

a/ Excluding small amount of winter wheat area.

Source: DAOs.

Note: Calculations computed from unrounded data.

4.5 Crop yield performance

Various techniques were used in order to determine the yield per unit area of each crop. These include household interviews, crop samples (cuts), visual observations of growing crops, closer evaluation of yields of harvested crops and grain storage tanks, counting of plant population densities and discussions with agricultural extension workers and individual farmers. Available historical data including the national average yields were also used in the determination of the yields.

The overall productivity of main cereal crops has significantly decreased during the cropping year 2006/07. The main factor for the reduction in yields (tonnes/ha) was lack of sufficient rain, particularly at the time of flowering and seed formation. The mid season drought caused complete loss of many crop fields through

abortion of flowers before bearing seeds. Although several other factors such as low yielding varieties, lack of fertilizer use, pest and weed infestations have contributed to the poor performance of the 2006/07 crops, the continued drought was the paramount parameter. The overall crop yield performance of the 2006/07 cereal crops (see Table below) is expected to be even lower than the already low yields of 2005/06. The average yields of maize, sorghum and wheat in the cropping season 2006/07 are estimated at 0.43, 0.42, and 0.52 tonnes/ha respectively. Compared to the last year's cropping season, yields have decreased dramatically by 42 percent and 25 percent for maize and sorghum respectively, and by 4 percent for wheat.

Table 3: Lesotho – Area, Yield and Production of Summer Cereals in 2006/07^{1/} Agricultural Year, by District

DISTRICT	Maize			Sorghum			Summer Wheat ^{2/}		
	Area (ha)	Yield t/ha	Production (tonnes)	Area (ha)	Yield t/ha	Production (tonnes)	Area (ha)	Yield t/ha	Production (tonnes)
Butha Buthe	6 620	0.7	4 634	1 600	0.4	640	163	0.8	130
Leribe	19 009	0.6	10 645	2 141	0.4	856	126	0.5	63
Berea	15 479	0.6	8 668	4 180	0.4	1 756	0	0	0
Maseru	13 361	0.6	8 017	3 254	0.4	1 302	2 110	0.7	1 477
Mafeteng	19 607	0.3	5 882	6 430	0.6	3 601	240	0.3	72
Mohale's Hoek	6 834	0.4	2 734	3 169	0.4	1 268	791	0.4	277
Quthing	8 008	0.3	2 402	2 640	0.4	1 056	881	0.4	335
Quacha's Nek	4 138	0.4	1 655	1 858	0.2	372	1 231	0.5	616
Mokhotlong	8 255	0.2	1 651	30	0.3	8	3 515	0.5	1 758
Thaba-Tseka	18 147	0.3	4 537	1 298	0.3	325	1 367	0.5	684
LESOTHO	119 458	0.4	50 825	26 600	0.4	11 182	10 424	0.5	5 411

1/ This corresponds to production in 2007 and cereal supply in 2007/08 marketing year.

2/ Excluding winter wheat area and production.

Sources: Area data based on DAOs; Yield and production for 2006/2007 are mission estimates.

Note: Calculations computed from unrounded data.

4.6 Cereal production forecast 2007

Table 4 below shows the total cereal production forecast for 2007 (from 2006/07 agricultural year) as compared to the previous year cropping season and the past five-year average (2002 – 2006). The national cereal production is estimated at about 67 000 tonnes which represents a substantial decline of 47 percent as compared to 2006 and 44 percent with respect to the five-year average. Maize production (50 825 tonnes) decreased by 51 percent compared with 2006, sorghum (11 182 tonnes) by 42 percent and wheat (5 411 tonnes) by 4 percent respectively. The main factor responsible for this significant production decline was the accentuated and continued drought prevailing in the most important cropping areas of the northern and central lowlands, namely Butha-Buthe, Leribe, Berea and Maseru, as well as in other districts such as Mafeteng in the southern lowlands.

Table 4: Lesotho - Total Cereal Production ('000 tonnes) in 2007 compared to 5-year average

DISTRICT	2002	2003	2004	2005	2006	5 years average	2007	2007 as percent of average
Butha-Buthe	3.7	2.9	6.2	5.1	10.3	5.6	5.4	96
Leribe	31.2	34.3	23.7	23.7	28.6	28.3	11.6	41
Berea	23.2	13.3	10.4	10.7	19.5	15.4	10.4	67
Maseru	23.3	15.1	17.4	23.7	20.5	20.0	10.8	54
Mafeteng	19.1	16.2	13.1	12.5	17.1	15.6	9.6	61
Mohale's Hoek	6.0	14.2	9.6	9.0	5.7	8.9	4.3	48
Quthing	2.8	6.7	5.5	4.5	6.0	5.1	3.8	74
Qacha's Nek	4.5	0.6	1.3	4.1	2.0	2.5	2.6	104
Mokhotlong	10.7	6.2	6.5	9.1	4.6	7.4	3.4	46
Thaba-Tseka	10.1	9.4	10.4	16.5	11.9	11.7	5.6	48
LESOTHO	134.6	118.9	104.1	118.9	126.2	120.5	72.4^{a/}	60

a/ A provisional forecast amount of 5 000 tonnes of winter wheat is included in the national total.

Source: Mission estimates.

Note: Calculations computed from unrounded data.

4.7 Winter wheat

Winter wheat is grown in the northern lowlands of Butha Buthe, Leribe, Berea and Maseru districts, as well as in Mefeteng and Mohale's Hoek. Planting of winter wheat normally starts in mid-April, making use of the residual soil moisture and small amounts of rainfall. At the time of the mission, some farmers were preparing fields for planting winter wheat that will be harvested in September/October 2007. The late rains in April this year (2007) are supporting land preparation and planting operations. A provisional forecast for about 5 000 tonnes of winter wheat is made by the Mission.

4.8 Livestock situation

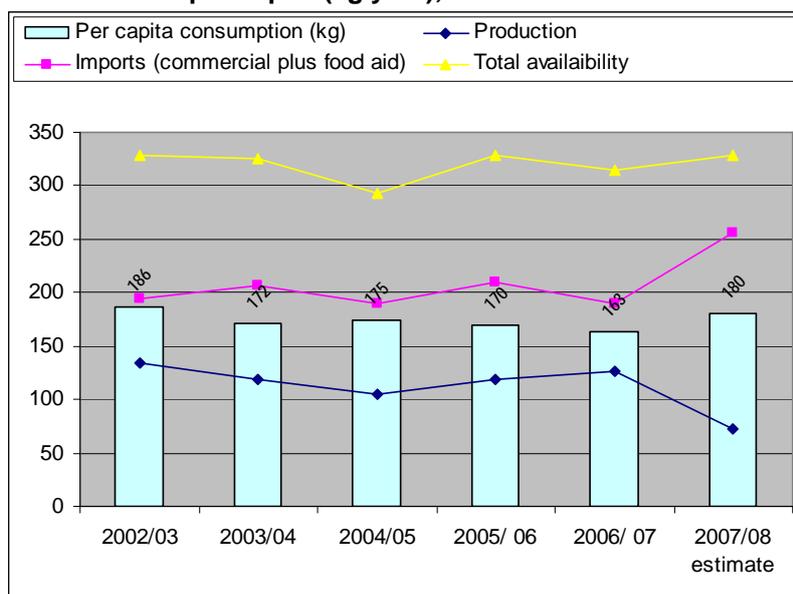
The majority of rural households own livestock, mainly cattle, sheep and goats. Many households also have a horse, donkeys or chickens. Unlike the previous drought years, the effects of the current drought on livestock have been minimal. The suppressed pasture growth at the beginning and during the dry spells of the season made significant recovery due to recent late rains (April). Moreover, the failed crops on the fields particularly the stalks of maize, were used to feed animals. However, the agro-ecological conditions over the coming months will have an effect on the general performance of the pastures and livestock and hence needs close follow-up. Livestock theft continues to be one of the main problems of the rural and agricultural communities.

5. NATIONAL CEREALS SUPPLY AND DEMAND BALANCE

The projected supply/demand balance for cereals for the marketing year 2007/08 (April-March) is summarized in the table below. It is based on production estimates of the 2007 maize, sorghum, and wheat crops and the latest information on trade and stocks. Total cereal production is estimated at 72 418 tonnes, including 50 825 tonnes of maize, 11 182 tonnes of sorghum, and a 5 411 tonnes of summer wheat crop already harvested and a provisional forecast for winter wheat, some 5 000 tonnes, to be harvested in September/October 2007. As these estimates are based on a field assessment carried out during the month of April, final production figures might vary, once all summer crops are harvested by end of May. The national supply/demand balance for cereals is based on following assumptions:

- **The population** for the mid-marketing year 2007/08 is estimated at 1 882 085, based on the preliminary findings of the 2006 census, endorsed by the Lesotho Bureau of Statistics. It includes an estimated annual increase of 0.5 percent with respect to the 2006 figure.
- **Opening stocks** for the marketing year 2007/08 are estimated at 30 068 tonnes. These include an estimated 13 346 tonnes of maize and 16 722 tonnes of wheat held by the two main commercial grain importers, the Lesotho Flour Mills and the Lesotho Milling Company; no significant stocks are projected to be held by farmers.
- **Closing stocks** are at 15 755 tonnes – 9 168 tonnes of maize and 6 587 tonnes of wheat respectively. This represents approximately the minimum national food requirements for two weeks of maize and one month of wheat, and is advisable to maintain, given the well documented level of variation in production from one year to the other.
- **Food Use:** The estimates for the 2007/08 national food use have been revised to bring them in line with the apparent consumption pattern of 2002/03 to 2006/07 food balance statistics (see Figure 3). Accordingly a total cereal consumption of all cereals is set at 180 kg per annum, based on maize 120 kg, wheat 45 kg, sorghum 8 kg and rice 7 kg. The remaining calories are expected to be derived from other food commodities. Previous CFSAM reports, based on older and longer time series, had used 181 kg cereal consumption without rice. The 180 kg consumption level provides about 78 percent of minimum 2 100 Kcal calorie intake from cereals. According to the BOS, the current per capita consumption rates based on the recent 2006 household survey might become available by the end of 2007 and therefore a revision in consumption figures and the import requirement may be warranted later in the year.

Figure 3: Availability of cereals (maize, sorghum, wheat and rice) - total ('000 tonnes) and per capita (kg/year), 2002/03 to 2007/08



Note - Per capita consumption using feed, other uses and stock levels from FAO/GIEWS.
Source: Bureau of Statistics, and CFSAM Mission Estimates.

- **Other uses** cover essentially post-harvest losses, feed and seed use. These are estimated at 6 percent for maize, wheat and sorghum.
- **Commercial imports** forecasts are based on the planned imports of about 105 000 tonnes of maize by the two main commercial importers of grain, the Lesotho Flour Mills and the Lesotho Milling Company. Additional imports of 37 000 tonnes of maize by small scale millers, petty traders and cross-border trade by individuals are assumed. All of the wheat and rice requirements are expected to be met through commercial imports.
- **Food Aid** stocks on hand and in pipeline at the beginning of the marketing year of 6 826 tonnes are those reported by WFP (2 959 tonnes) and C-SAFE (3 867).

Table 5: Lesotho - National Cereals Supply-Demand Balance, April 2007 - March 2008 (in '000 tonnes)^{1/}

	Maize	Wheat	Sorghum	Rice	Total
Domestic Availability	64	27	11	0	102
Opening stocks	13	17	0	0	30
Production	51	10	11	0	72
Total Utilization	238	92	16	13	359
Food use	226	85	15	13	339
Other use (PH losses, seed, feed)	3	0	1	0	4
Closing stocks	9	7	0	0	16
Import Requirement	174	64	5	13	256
Anticipated Commercial Imports	142	64	0	13	219
Confirmed Food Aid	7	0	0	0	7
Uncovered Deficit	25	0	5	0	30

^{1/} Although the resulting estimates represent the most likely scenario, given the uncertainty of each parameter in the balance sheet, there may be variation in the actual outcome.

Note: Calculations computed from unrounded data.

The total cereal import requirement in 2007/08 (April-March) is estimated at about 256 000 tonnes, out of which commercial cereal imports are projected at 219 000 tonnes, consisting of maize, wheat and rice. With a small amount of food aid in the pipeline, of about 7 000 tonnes, there is an uncovered cereal deficit of about 30 000 tonnes to be covered with Government and/or international assistance.

6. FOOD SECURITY AND VULNERABILITY ASSESSMENT

6.1 Main factors determining rural food security in Lesotho

Access to food through own production or purchases remains a constant challenge for many households in Lesotho. More than 95 percent of households engaged in agricultural production do not produce sufficient quantities to meet their own food requirements, and thus purchasing in the open market is one of main strategies to access food. The country produces only about one-third of its annual food requirements, hence large imports of maize, wheat and sorghum are necessary, even in years with good production.

However, food security in Lesotho is by far not dependent on availability alone: even when food is available, declining incomes and price increases mean that many households cannot afford to buy sufficient food. The structural context constraining livelihoods has remained the same over the past years. Limited employment opportunities, successive years of below-average agricultural production, rising staple food prices and the effects of HIV and AIDS have continued to undermine rural livelihoods and worsen the overall food security situation. Reduced cereal productions are related to successive years of erratic weather, poor agricultural practices that result in low productivity and reduced land planted due to drought and lack of man-power as a result of chronic illness. Against this unfavorable structural background, there is clear evidence that vulnerable households are struggling to develop, or even maintain sustainable livelihoods. This year's widespread crop failure will lead to a further worsening of the situation, both in terms of chronic and transitory food insecurity.

6.2 Method of assessment

The Mission has assessed household vulnerability using both secondary and primary data sources. Initially, consultations were carried out with key stakeholders, most notably the Lesotho Vulnerability Assessment Committee (LVAC). The Mission then carried out field visits, conducting Community Key Informant interviews in all ten districts, before proceeding to a selected number of villages for Focus Group Discussions and interviews with poor households.

A key secondary source of information used by this assessment was the LVAC livelihood profiles (see appendix C). The LVAC methodology is based on the Household Economy Approach (HEA) that compares household consumption needs with food and other income sources, detailing expenditure patterns, and assessing coping mechanisms in case of shocks. Emergency needs were estimated by comparing the findings from the Mission's field work and other current data with the LVAC baseline information.

The main source of current information – other than the crop production estimates and cereal price data - were the results of the 8th round of the Community and Household Surveillance (CHS), conducted jointly by WFP and the Disaster Management Authority (DMA) in March 2007. For the first time, CHS was carried out in all ten districts of Lesotho, interviewing over 800 households using a structured questionnaire. The CHS provides current data on key proxy indicators of food insecurity such as changes in household food consumption (diet diversity and frequency) and coping behaviour.

The main limitation of this assessment was the rather short time available that did not permit a greater number of in-depth interviews and a wider geographic coverage. It is also recognized that CHS data lacks predictive power and only provides a snapshot of the food security situation.

6.3 Food security status, coping strategies and vulnerabilities

6.3.1 Livelihood strategies

Lesotho is divided into six livelihood zones, based on the four agro-Ecological zones plus the peri-urban areas surrounding some of the main towns in the country. The Lowlands support more than half of the national population with food, contain 70 percent of the limited arable lands, and provide most of the available non-agricultural employment.

Table 6: Agro-Ecological Zones, Livelihood Zones and Administrative Districts in Lesotho

Agro-Ecological Zone	Livelihood Zone	Administrative Districts
Lowlands	Northern Lowlands	Butha-Buthe, Berea, Leribe
	Southern Lowlands	Mafeteng, Maseru, Mohale's Hoek,
Foothills	Foothills	Mafeteng, Butha-Buthe, Leribe, Maseru, Mohale's Hoek, Berea
Mountains	Mountains	Mokhotlong, Thaba-Tseka, Qacha's Nek, Leribe, Maseru, Mohale's Hoek, Berea, Quthing
Senqu River Valley	Senqu River Valley	Quthing, Mohale's Hoek, Qacha's Nek, Thaba-Tseka
	Peri-urban	All districts with urban centres

The LVAC Livelihoods Profiles provide an important basis for understanding the livelihoods of rural populations. The vulnerable households generally access food through a combination of markets, in-kind payments from agricultural activities, and food aid. Own production is normally only a supplementary source of food. However, in the relatively productive agricultural areas of the Northern Lowlands, own production constitutes the main food source, also for these groups. The typical income generating activities are casual labour related to agriculture, construction and domestic work, self-employment, and in certain zones these are also complemented by petty trade. Gifts from relatives, remittances and social networks form an additional support mechanism in times of stress.

Table 7 illustrates the main livelihood activities per district using data collected during the recent CHS exercise.

Table 7: Main livelihood activities (March 2007 CHS data)

District	First	Second	Third
Butha-Buthe	Food crop production: 71%	Remittances: 58%	Casual labour: 46%
Leribe	Casual labour: 51%	Food crop production: 34%	Begging: 34%
Berea	Casual labour: 43%	Pension: 27%	Food crop production: 24%
Maseru	Casual labour: 42%	Gifts: 39%	Remittances: 34%
Mafeteng	Gifts: 42%	Food assistance: 41%	Casual labour: 40%
Mohale's Hoek	Gifts: 44%	Casual labour: 37%	Food assistance: 33%
Quthing	Casual labour: 45%	Food assistance: 43%	Food crop production: 31%
Qacha's Nek	Food assistance: 35%	Casual labour: 33%	Gifts: 32%
Mokhotlong	Cash crop production: 44%	Gifts: 44%	Casual labour: 40%
Thaba-Tseka	Casual labour: 40%	Small business: 32%	Gifts: 28%

6.3.2 Chronic versus transitory food insecurity

An important aspect of vulnerability in Lesotho is the difference between chronic and transitory food insecurity. A chronically food insecure household is one that experiences inadequate food consumption year after year. Chronic food insecurity is usually associated with structural poverty, such as the lack of resources to either purchase or produce enough food. Transitory food insecurity, in contrast, refers to a state where the inability to meet food needs is limited to shocks such as price hikes and drought.

An example of chronic food insecurity is the households identified in a DMA/WFP Targeting Exercise conducted in the Southern Lowlands and Senqu River Valley areas in 2005. The analysis found that a significant proportion of vulnerable households in these areas experience near-complete livelihood failure. The exercise identified more than 39 000 households vulnerable to hunger and poverty, amounting to approximately 195 000 persons. Livelihoods of these poor rural-households are compromised. Typically they are comprised of particularly vulnerable groups, such as households that support chronically ill persons (e.g. HIV and AIDS cases), orphaned and vulnerable children and other households categorized as 'very poor.' DMA/WFP recommended that targeted social-protection programmes such as food aid or cash-transfers should be implemented to ensure that groups vulnerable to chronic hunger and poverty in Lesotho are provided with the means to ensure their survival and to enhance their livelihoods.

6.3.3 Current situation

The livelihood failures ordinarily experienced by vulnerable households will be further aggravated as a result of the drastically reduced 2007 cereal production estimated by this Mission. Following three consecutively reduced cereal harvests, the March 2007 CHS data showed that over 70 percent of households were out of food stocks at the end of the lean season in March. The field visits identified that the vulnerable groups that produce their own crops normally have stocks that last for 2 to 3 months; however, this season stocks are expected to run out after only about one month. The Mission also observed that for vulnerable households there will be a significant reduction in the amount of cash and in-kind payments received from weeding and harvesting, but livestock theft remains the most important reason for the loss of livelihood assets.

Given the restricted asset base to fall back on, households will have limited sustainable coping strategies at their disposal. A common mechanism highlighted by many interviewed was an increased reliance on social networks. This strategy might, however, not be sustainable as even the wealthier households and larger farmers will be put under stress, and therefore be unable to extend sufficient support to the poorer households. Increasing the search for casual labour for food is another measure taken. Such opportunities will, however, be very scarce due to the large-scale crop failure. In the end, these households are often forced to resort to unsustainable coping mechanisms in order to meet their food needs. The CHS data confirm the general picture regarding coping mechanisms identified by this Mission. By March 2007, the most commonly used coping strategy was to eat less preferred foods (60 percent), followed by borrowing of food (49 percent), and increase the search for casual labour for food (40 percent). Even most severe coping strategies were frequently observed: gathering unusual amounts of wild foods (40 percent), sending household members to beg (24 percent), skipping entire days without eating (18 percent), and harvesting immature crops (13 percent).

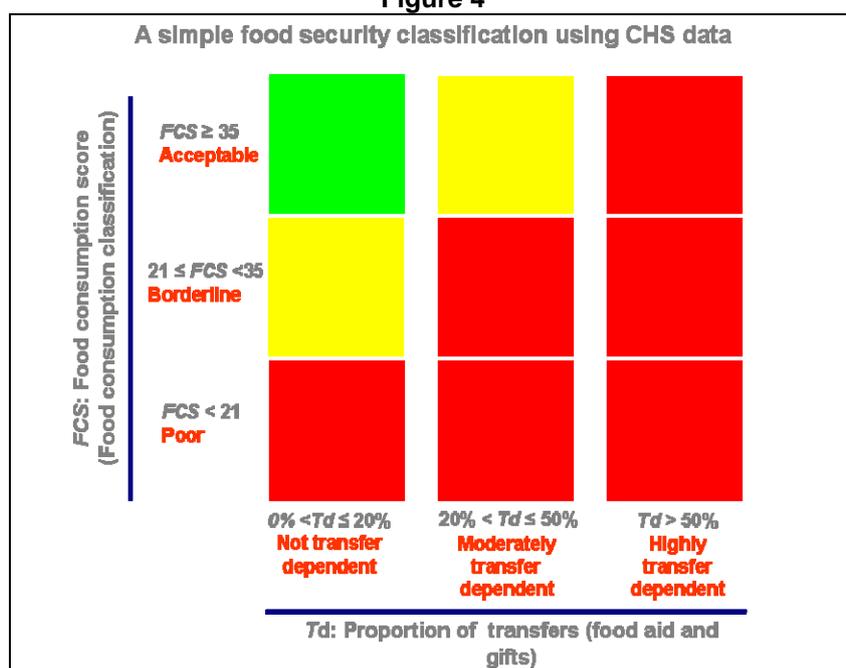
Further compounding the situation are the increasing prices of basic commodities, a trend already identified by the LVAC in last year's needs assessment. The analysis of South African (RSA) maize grain prices shown in Figure 1 indicates that current prices are well above their levels of a year earlier. Analysis of prices at household level in Lesotho also reveals a drastic upward trend at the time of the Mission compared with same time period two years ago. It is expected that this trend will continue into the lean season, as prices of maize from south Africa are forecast to increase further following two consecutively reduced harvests in that country and importers adjust their prices to reflect their import costs. Given that it is the vulnerable households who depend most heavily on markets to access food, their dwindling purchasing power will be the most serious threat to food security for the remainder of this marketing year.

6.3.4 Geographical distribution of food insecurity

Research has shown that the quality and quantity of food consumed is directly linked to a households' vulnerability to food insecurity. This is measured by the key indicator Food Consumption Score (FCS), collected bi-annually by the Community Household Surveillance (CHS). Analysis of CHS data in Southern Africa has resulted in standard thresholds for food consumption (see Figure 4). In an attempt to make a simple food security classification that was comparable across districts and that separates the effect of food aid, three types of households were identified from the CHS data as falling under the food insecurity category:

- Those that have *poor* consumption;
- Those that have *borderline* consumption and depend *moderately* on transfers (more than 20 percent of food consumed from food aid and gifts);
- Those that have *adequate* consumption but depend *heavily* on transfers (more than 50 percent of foods consumed come from food aid and gifts).

Figure 4



The total percentage of such households in each district is illustrated in table 9 and can be used as a proxy of the level of food insecurity at the height of the last lean season. Although the CHS sampling frame does not allow for a statistically representative analysis⁴, the data still provide indicative comparison between the districts, illustrating that the Southern Lowlands and the Senqu River Valley are the most food insecure areas.

Table 9: Food insecurity at the height of the lean season

District	Share of population
Butha-Buthe	13%
Leribe	22%
Berea	32%
Maseru	46%
Mafeteng	55%
Mohale's Hoek	62%
Quthing	59%
Qacha's Nek	25%
Mokhotlong	13%
Thaba-Tseka	17%

6.4 Health and nutritional status

According to the 2006 report on the global HIV and AIDS pandemic (UNAIDS), Lesotho has high but relatively stable HIV and AIDS prevalence rates. HIV prevalence among the adult population is estimated at 23.2 percent. Among pregnant women (25-34 years of age) more than one-third of pregnant women tested HIV-positive. According to the Ministry of Health and Social Welfare, HIV prevalence among pregnant women continues to increase in urban areas. Migrant labour is believed to be the main cause of the high prevalence, compounded by a general lack of awareness and understanding of HIV and AIDS. A survey in

⁴ The CHS does not include households in the vulnerable peri-urban areas. Moreover, part of the surveyed households is purposely drawn from the list of food aid beneficiaries as the system is also used for programme outcome monitoring.

2004 revealed that only 26 percent of women and 18 percent of men aged 15–24 years demonstrated sufficient knowledge of AIDS.

HIV and AIDS adversely affect household labour supply through sickness and/or death of adult household members. Time taken for caring for sick household members also affects labour availability for productive activities. The CHS analysis shows that the percentage of dependents⁵ is over 60 percent for most districts, and that it is highest for households with poor asset wealth (68 percent). Community productivity is also adversely affected where other individuals and households spend time and money assisting affected people and attending funerals. This is compounded by reduced ability to draw on reciprocal labour arrangements with neighbours.

There is no regular monitoring of nutrition indicators in place in Lesotho. The Demographic and Health Survey (DHS, 2004) does, however, report that 19.8 percent of children under five are underweight, 38.2 percent are chronically malnourished (stunted) and 4.3 percent are acutely malnourished (wasted). A Nutrition Survey conducted in March 2006 (WFP, FNCO, and LVAC) confirmed these figures, stating that 18.4 percent of children under five were underweight, 2.4 percent of children under-5 were acutely malnourished (wasted), and 37.9 percent of the children under five were chronically malnourished. The highest prevalence of underweight was found in the peri-urban zone, in the southern lowlands, and in the mountains.

6.5 Population in need and emergency food assistance

Building on discussions with the Lesotho VAC, the following assumptions were used to estimate the number of people in need of emergency food assistance:

- A household is considered in need if it is unable to meet its food and essential expenditure requirements, using as a reference the understanding of the household's *normal* economy and the way the production failure and maize price increases affect it (baseline data).
- The CFSAM estimates for maize, sorghum and wheat production were used to estimate the changes in the expected household cereal production;
- The percentage decline in cereal production was used as a proxy for the reduction in income and in-kind food access from agricultural labour activities;
- Based on analysis of maize price data, a 100 percent increase relative to 2004/05 (LVAC base year) was assumed;
- An annual inflation figure of 5 percent was used for adjustment in general prices;
- Figures from the new population census were used and disaggregated by each livelihood zone.

A total of 401 200 people are thus projected to be in a food and expenditure deficit during the 2007/08 marketing year. Approximately 30 000 tonnes of maize, or cash equivalent, will be needed to meet the deficits of these most vulnerable groups.

To estimate the district-by-district distribution of food security problems the current CHS data provided an important complement to the LVAC model. Given that price hikes and crop losses affect the entire country to a fairly equal degree it is assumed that the geographical breakdown of food insecurity at the end of the previous lean season (as presented in table 9) can serve as an adequate basis for calculating assistance needs until the next harvest – see Table 10.

⁵ Persons < 18 years or > 59 years of age in the household.

Table 10: Geographical breakdown of needs

District	Number of needy people
Butha-Buthe	14 500
Leribe	26 000
Berea	37 500
Maseru	54 000
Mafeteng	63 500
Mohale's Hoek	72 400
Quthing	69 100
Qacha's Nek	29 500
Mokhotlong	14 500
Thaba-Tseka	20 200
Total	401 200

To provide an estimation of the evolution of needs throughout the year, the mission used the CHS data and assumed that households with poor food consumption at the moment of the survey (CHS, March 2007) (138 200) would need assistance already as of July 2007. The caseload is then expected to increase in the lean season (Oct-Dec) as stocks are depleted and prices rise, reflecting shortages in local markets. To calculate this increase the mission used the CHS data on households having a borderline diet and who were fully dependant on transfers to meet their food requirement. The number of beneficiaries will finally peak at the height of the lean season in January to March 2008 as predicted by the LVAC baseline information combined with the magnitude of the current shock. Table 11 shows the evolution of assistance needs, assuming an average ration size of 13.5 kg/month⁶ of cereals for all beneficiaries. The recommended 30 000 tons of cereal assistance will need to be complemented by 6 700 tons of assorted food commodities to provide a humanitarian food basket equivalent to 2 100 kcal per person per day.

Table 11: Assistance needs throughout 2007/08 (April/March)

	Jul-Sep	Oct-Dec	Jan-Mar	Total
People	138 200	202 900	401 200	401 200
Cereals (tonnes)	5 600	8 200	16 200	30 000
Other foods (tonnes)	1 300	1 800	3 600	6 700

6.6 Possible strategies for assistance

Emergency assistance for some 400 000 people is required to address the current shock to the food security situation in Lesotho. However, assistance strategies should also seek to factor in the longer-term situation of increased vulnerability. Therefore, as much as possible relief food assistance should be provided in the form of targeted vulnerable group feeding as well as food transfers for community asset creation and agriculture based livelihood support programs. These activities should aim to provide opportunities to rehabilitate livelihoods and strengthen coping mechanisms. The creation, maintenance or rehabilitation of sustainable assets should be envisaged simultaneously with support in meeting the basic needs of the most vulnerable households and marginalised groups.

Currently on-going food assistance programmes for chronically food insecure households and vulnerable groups reach approximately 120 000 people. About half of this assistance is provided through WFP, the other half through a consortium of USAID supported NGOs – CARE, CRS and World Vision (C-SAFE

⁶ Cereals, as the staple food, provide the main source of energy, a large proportion of the protein in the diet, and a range of micronutrients. Pulses (beans and lentils) are needed to supply additional protein and micronutrients. A source of fat or vegetable oil is essential to improve palatability and increase the energy density of the diet. Protein and fat sources should contribute 10-12 percent and 17 percent respectively of the energy content of the ration. The combination of cereals, pulses and oil provides the major part of people's nutritional requirements. Other commodities, though, must be added to make up nutritional shortfalls - particularly in micronutrients - and to address the specific requirements of HIV/AIDS patients who may constitute a large part of beneficiary caseload.

Lesotho). WFP's current assistance includes participants in HIV/AIDS, tuberculosis, mother and childcare, orphans and other vulnerable children programmes and Food-for-Work/Assets (FFW/A). C-SAFE Lesotho implements food aid programmes in the form of Food-for-Assets to build productive agricultural assets in targeted vulnerable rural communities.

Both aid providers are prepared to scale up their activities in response to the drought. WFP would envisage to gradually increase its caseload in phases, reaching a peak of 260 000 beneficiaries in January – April 2007. The increased level of assistance in response to transitory food insecurity needs would focus on targeted interventions through vulnerable group feeding, supplementary feeding (MCH) and Food-for-Work/Assets where feasible and be clearly demarcated from the protracted recovery assistance for vulnerable households. The C-SAFE consortium would increase the caseload of beneficiaries to approximately 150 000 affected people, mainly through Food-for-Work/Assets and targeted vulnerable group feeding for those unable to participate in FFW/A activities.

The extent of this year's crop failure suggests that opportunities for local purchase from farmers is likely to be limited as such purchase can lead to food insecurity through large off-take that creates local scarcity, high price increases and disruption of local markets. WFP's 'local procurement' in Lesotho has in the past been in the form of purchases from millers. As discussed in the first part of the report, millers usually import grains from South Africa. Local procurement at times of local grain scarcity and uncompetitive prices would potentially contravene with core principles of WFP local purchase – adequate quantities of good quality grain stocks that are cost-effective.

Cash and voucher programming could potentially be used as alternatives to food distributions. However, the prevailing inflationary environment and the poor market functioning, especially in the highlands, are key factors to take into account from a cost effectiveness point of view. Further investigation would be required. WFP Lesotho is currently undertaking a study under the 'Special Initiative on Cash and Voucher Programming (SIVCP)' to better understand the feasibility of these options.

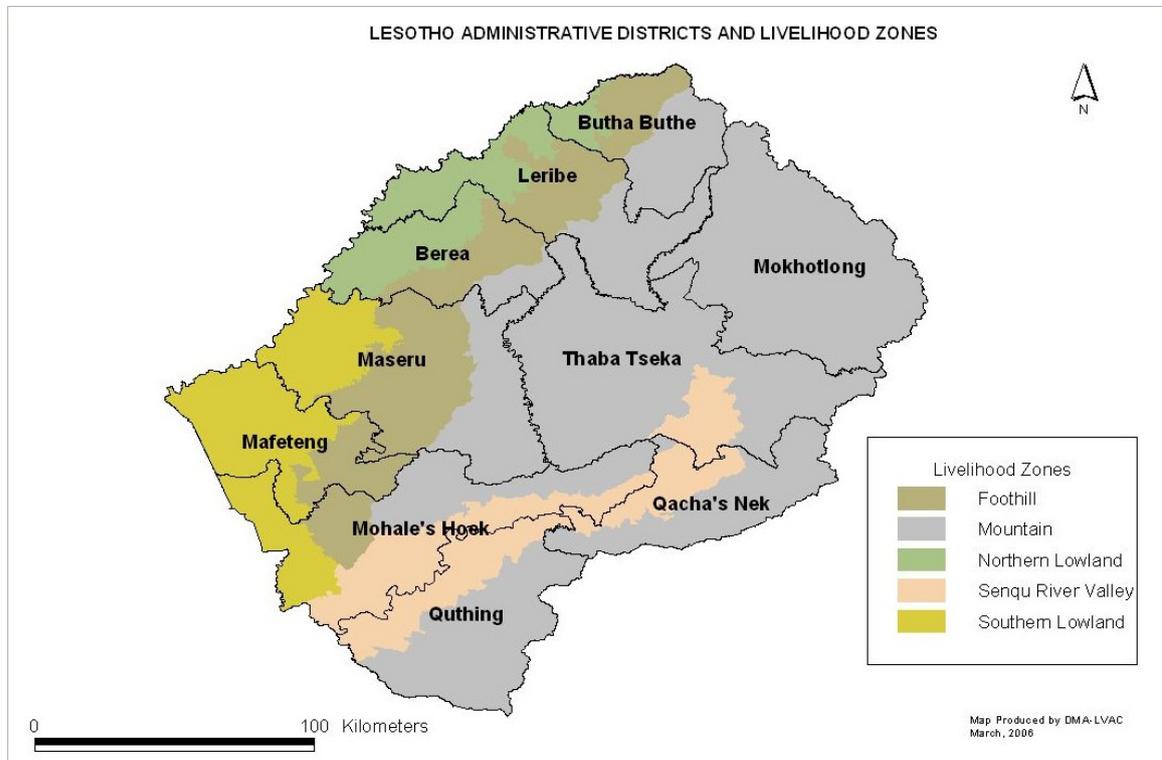
6.7 Overview of non-food needs

Besides emergency food assistance, other assistance and support to preserve, recover, or develop assets and livelihoods of crisis-affected people would be required. This should include support to affected farmers to promote livelihood diversification and strengthen the non-agricultural economy. In this way, households' livelihoods can become more diversified, and less dependent on rain-fed agriculture. Farmers should be assisted with the provision of seeds, fertilizers and other inputs. In addition, the promotion of crop diversification to increase the use of drought tolerant crops should be given due consideration. Support for improving water supply, sanitation and health care will ensure that the nutritional impact of food assistance for the protection and recovery of vulnerable groups is maximized.

6.8 Other recommendations

It is recommended that the next round of the LVAC should investigate whether poverty levels have actually been increasing as indicated by the data given in this report. If so, up-dating of the food security baselines would be necessary. Moreover, it would be advisable to include in the LVAC exercise some of the household level indicators utilized by the CHS, as it is imperative to monitor food consumption patterns, coping mechanisms and the sustainability of livelihoods through potential depletion of assets. Up-dates on the food security situation will also become available from the next round of the CHS that is scheduled for around October 2007. The mission finally would like to encourage relevant governmental bodies and international agencies to undertake, at the earliest opportunity, a proper national nutrition survey.

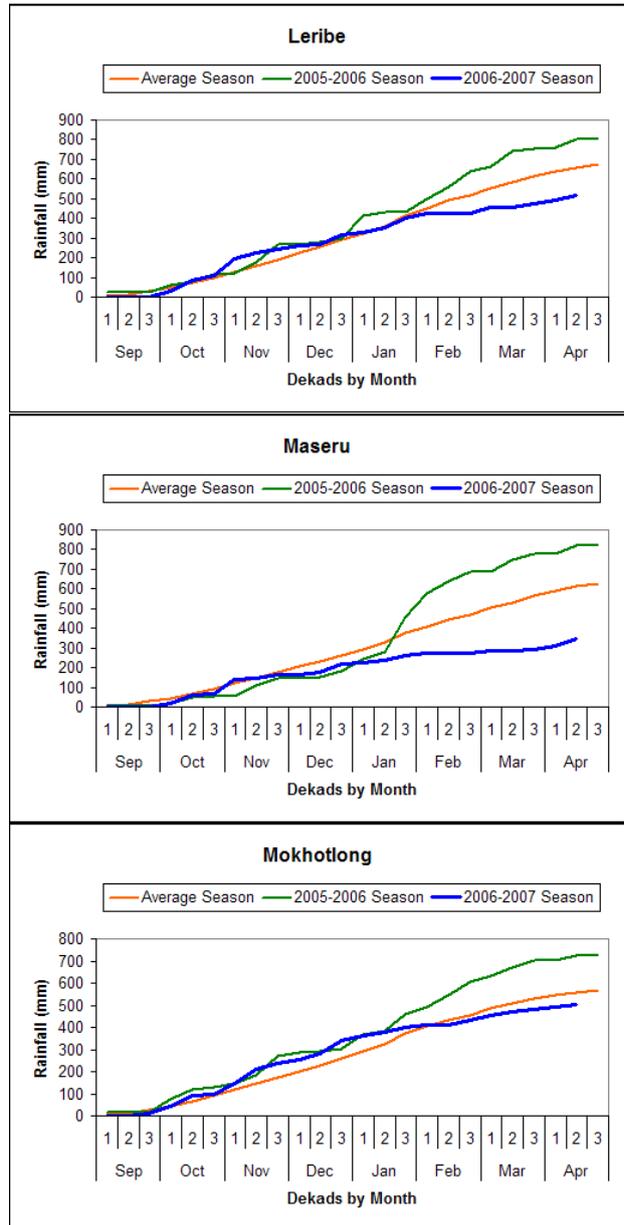
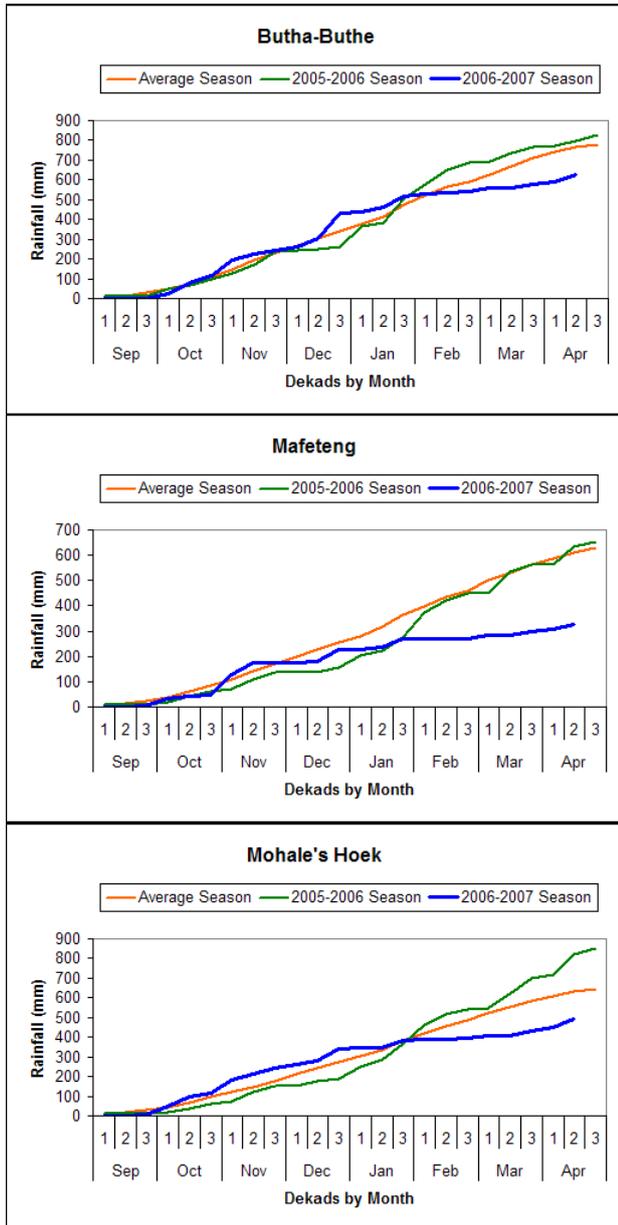
Lesotho Map – Districts and Agro-ecological Zones

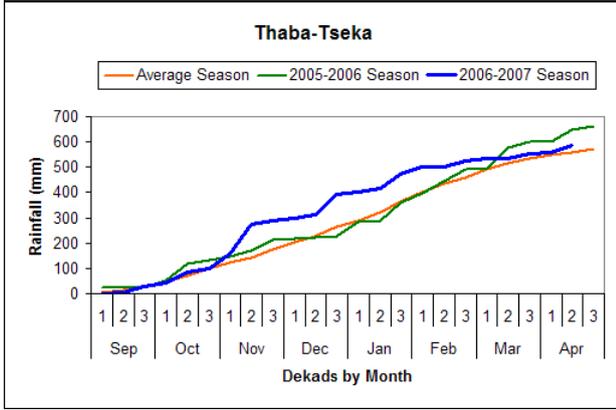
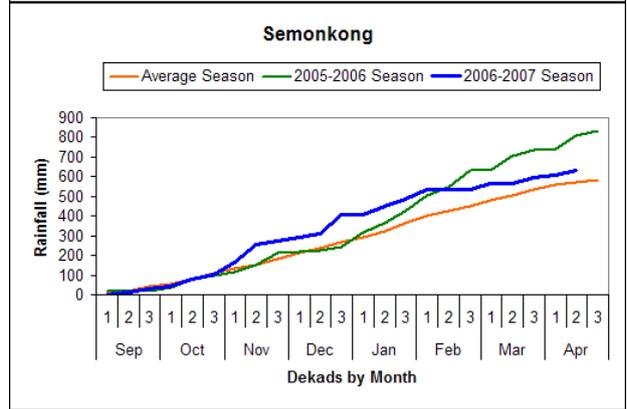
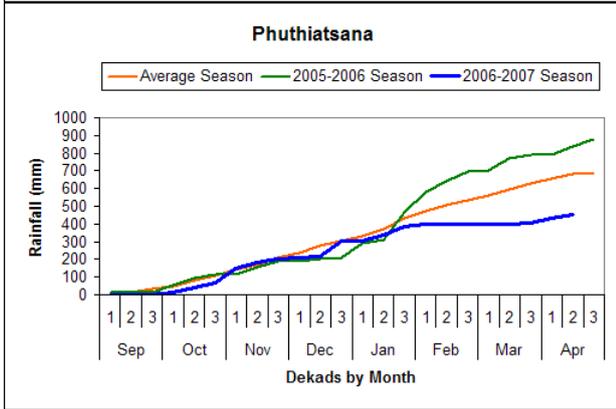
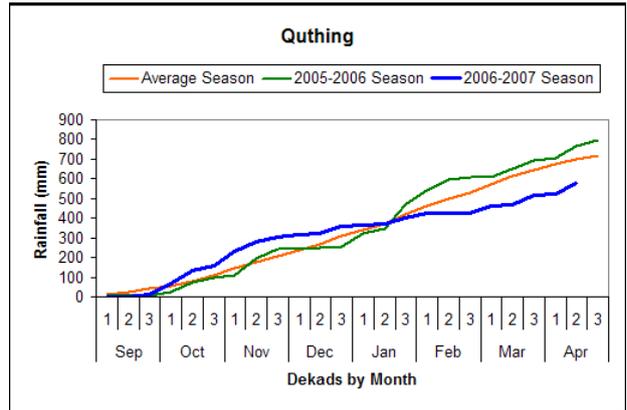
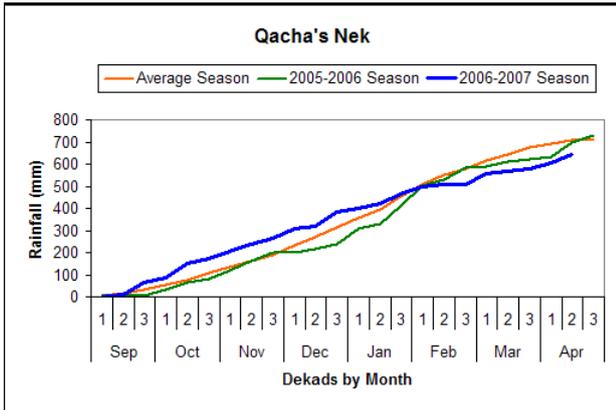


APPENDIX B:

Lesotho Rainfall Data 2006/2007

Cumulative Rainfall:





Source: Lesotho Meteorological Services, SADC Regional Remote Sensing Unit

Livelihoods Profiles from the LVAC Baseline

The LVAC baseline includes a breakdown of the households into four different categories according to wealth: the 'very poor', the 'poor', the 'middle' and the 'better-off'. Following is a Table summarizing the main characteristics of these different wealth groups across all districts, as given by the Lesotho Livelihoods Profile Report published by the LVAC.

<p style="text-align: center;">FOOTHILLS</p> <ul style="list-style-type: none">➤ 13 percent are 'very poor', 28 percent are 'poor', 44 percent are 'middle', and 15 percent are 'better-off'.➤ The 'middle' and 'better-off' access most of their food from own production (60-80 percent), while the poorer households rely heavily on a combination of purchase and payments in-kind, in addition to food aid for the 'very poor'.➤ Remittances form the most important income source (about 40 percent) for all wealth groups except the 'very poor' (about 20 percent) that rely mostly on agricultural labour (about 40 percent) and self-employment. These two latter sources are also important for the poor, while sales of livestock and livestock products are major sources for the wealthier households.
<p style="text-align: center;">MOUNTAINS</p> <ul style="list-style-type: none">➤ 15 percent are 'very poor', 40 percent are 'poor', 25 percent are 'middle', and 20 percent are 'better-off'.➤ The 'middle' and 'better-off' access about 50 percent of their food from own production which they supplement with market purchases; the poorer households depend on a combination of purchase and payments in-kind, in addition to food aid for the 'very poor'.➤ Casual labour is the most important income source for the poorer households (agriculture, domestic and construction), formal employment is the main source for the ones categorized as 'middle', while the sale of wool and mohair constitutes 60 percent of the better-off incomes.
<p style="text-align: center;">PERI-URBAN</p> <ul style="list-style-type: none">➤ 18 percent are 'very poor', 40 percent are 'poor', 24 percent are 'middle', and 18 percent are 'better-off'.➤ The 'middle' and 'better-off' access most of their food (over 60 percent) from own production which they supplement with purchases; the poorer households depend on a combination of purchase, payments in-kind, and food aid;➤ Agricultural labour is the most important income source for the 'very poor', the 'poor' rely on a combination of different casual labour activities and self-employment, while the middle and better-off get cash from formal employment and remittances.
<p style="text-align: center;">NORTHERN LOWLANDS</p> <ul style="list-style-type: none">➤ 18 percent are 'very poor', 25 percent are 'poor', 40 percent are 'middle', and 17 percent are 'better-off'.➤ All wealth categories have own production as the main source of food, in general supplemented by purchase and in-kind payments for the 'very poor' and 'poor', while wealthier households purchase most of their additional food.➤ Formal employment, pensions and sales from own production (crops, livestock and livestock products) are the major cash earners for the 'middle' and 'better-off', the 'poor' and 'very poor' rely on casual labour and sale of livestock/livestock products.

SOUTHERN LOWLANDS

- 20 percent are 'very poor', 33 percent are 'poor', 27 percent are 'middle', and 20 percent are 'better-off'.
- Own production stands for about 60-80 percent of the total food consumed by the 'middle' and the 'better-off', while the 'poor' and the 'very poor' rely heavily on purchase and in-kind payments to supplement what they get from own production
- 'Better-off' and 'middle' earn cash from formal employment, pensions and remittances; the 'poor' and 'very poor' rely on various forms of casual labour and self-employment in addition to remittances.

SENQU RIVER VALLEY

- 15 percent are 'very poor', 35 percent are 'poor', 40 percent are 'middle', and 10 percent are 'better-off'.
- The 'middle' and the 'better-off' get most of their food from own production, but purchasing substantial amount from markets as well; the 'poor' and 'very poor' have purchase, in-kind payments and food aid as their main food sources.
- Formal employment and pensions are the main determinants of income for the 'better-off', the 'middle' rely mainly on petty trade, the 'poor' combine petty trade and livestock sales, while the 'very poor' use whatever casual labour they can get to earn income (most notably related to agriculture)