



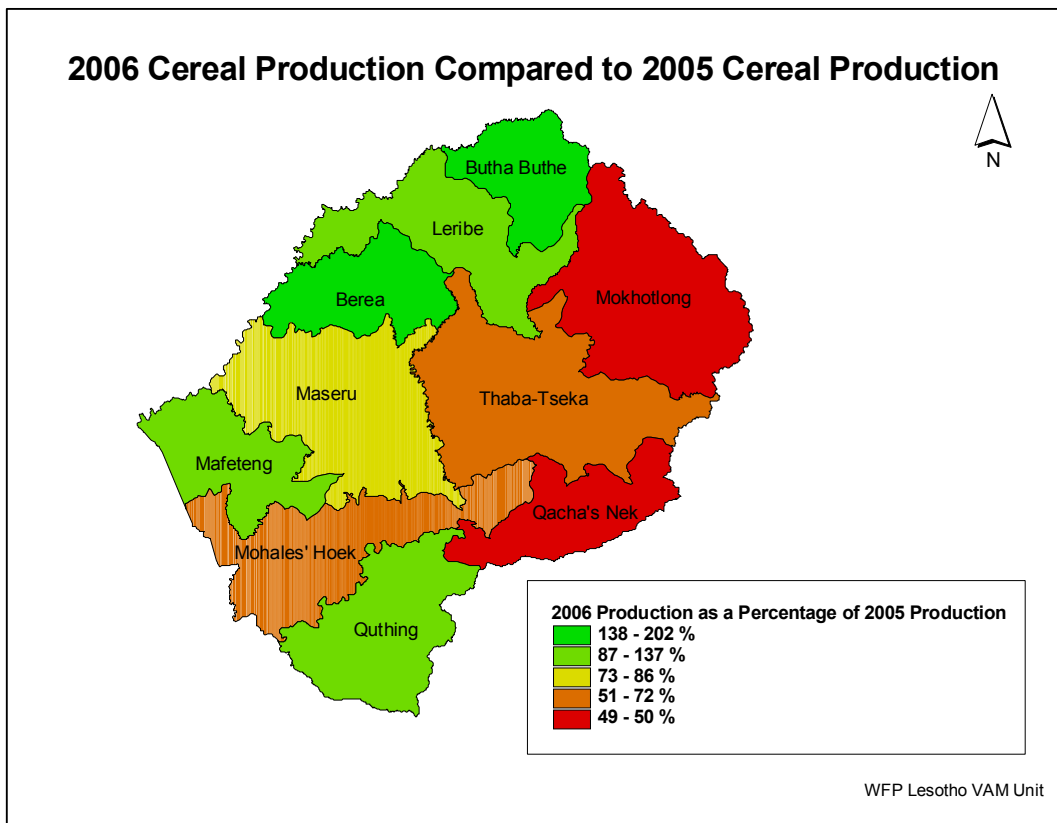
Assessment of 2005/06 Agricultural Production in Lesotho

Support to the Agricultural Season Assessment

Lesotho, June 2006.

Executive Summary

Despite initial optimism, 2006 will be an average national production year for Lesotho. Cereal production for the 2005/06 season is forecast at 126,170 tonnes, comprising of 102,999 tonnes of maize, 5,635 tonnes of wheat and 17,847 of sorghum. This represents a 6% increase over last year's output and 96% of the five year average. The output is a result of generally abundant, but late and heavy rainfall, combined with reductions in the size of area cultivated, decrease in the use of fertilizer and decline in the use of improved seed. It should be noted that there will be significant regional production variations, with landholders in the Northern Lowlands registering a very good production season compared to landholders in the Mountains and Senqu River Valley areas, who registered a very poor season. Cereal import requirements for the 2006/07 (April/March) are forecast at 294,900 tonnes.



Map 1. 2006 Estimated Cereal Production Compared to 2005 Cereal Production.

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ACRONYMS

BOS	Bureau of Statistics
CFSAM	Crop and Food Supply Assessment Mission
CRS	Catholic Relief Services
DAO	District Agricultural Officers
DMA	Disaster Management Authority
FAO	Food and Agriculture Organization
LVAC	Lesotho Vulnerability Assessment Committee
MoAFS	Ministry of Agriculture and Food Security
NEWU	National Early Warning Unit
RSHDA	Rural Self Help Development authority
SAGIS	South African Grain Information Service
SANReMP	Sustainable Agricultural and Natural Resource management Programme
VAM	Vulnerability Analysis and Mapping
WFP	World Food Programme
WV	World Vision International

1. Introduction and Background

Lesotho provides evidence of the difficulties facing agricultural production when over-crowded and depleted communal lands are combined with chronic poverty, rapid urbanisation, a large (but declining) migrant labour force and a very high incidence of HIV/AIDS. Landlocked by South Africa, Lesotho covers an area of 30,000 square kilometres. The environment is particularly harsh because of its terrain and climate. The altitude ranges from 1,388 to 3,482 meters above sea level. The mean annual rainfall ranges from 426 mm in the lowlands to 1,097 mm in the highlands, with 85 percent of rain falling in the summer months from October to March. Snow occurs annually in the mountains and frost is common across the country.

The country is divided into four agro-ecological zones: the lowlands in the western portion of the country rising to the foothills, and to the highlands in the east. The area adjacent to the Senqu River in the south of the country is considered a separate zone. The highlands account for 60 percent of the land cover and have the lowest concentration of people. Box 1.1 below provides a detailed description of each agro-ecological zone.

Lesotho's Agro-Ecological Zones

The Lowlands

The lowlands cover the western part of the country and occupy about 5,200 km² which is 17% of the total surface area. This region is a narrow strip of land extending at some places just 10km from the border to 60km at others and it which lies between 1,400m and 1,800m above sea level. The northern and central lowlands are characterized by large deposits of rich volcanic soils, while the southern or border lowlands are characterized by poor soils and low rainfall.

The Foothills

The foothills are defined as the area between the lowlands and the highlands and occupy an estimated area of about 4,600 km² which lies between 1,800 and 2,000m above sea level and forms 15% of the total land area. The foothills consist of very fertile land that is associated with high agricultural productivity.

The Senqu River Valley

The Senqu River Valley forms a narrow strip of land that flanks the banks of the Senqu River and penetrates deep into the highlands, reaching lower parts of the main tributaries of this river. This region covers 9% of the total surface area. The soils of the Senqu River valley vary from rich to very poor, making this the most unproductive region in the country.

The Highlands

The largest ecological area, known as the Maluti Mountains or the highlands, covers an area of 18,047 km² of the Drakensberg range. This region is extensively dissected by the headwaters of the Senqu River and its tributaries which drain in a north-south direction, and, together with an extensive network of mountain wetlands, today form an important segment of the Southern African region's water resources. The drainage pattern of the highlands region has produced deep river valleys, gorges, and gullies that, in general, make human life very difficult. The highlands region forms the main livestock grazing area in the country.

Box 1: Lesotho's Agro-Ecological Zones

The three main cereals grown in Lesotho are maize, wheat and sorghum, with maize by far the dominant one accounting for 77% of the country's cereal production. Although maize production has been on the decline in recent years, it remains the country's staple food, constituting an estimated 80% of the rural diet. Maize is more significant in the lowlands and least significant in the mountain areas, where most of the wheat is produced. Leribe, Maseru, Mafeteng and Berea are the four leading districts in maize production. Jointly they constitute about 75%

of the total national production. The scarcity of agricultural land is compounded by volcanic soils, which are shallow, sandy, poorly structured and highly susceptible to erosion. In particular, soils found in the lowlands along the valley bottoms are often characterised by extensive gully systems, while in the mountains and foothills zones, the topsoil tends to erode more easily than the subsoils.

The majority of maize farmers are small-scale subsistence farmers. These farms are characterised by very low productivity, and the average yield for the past 10 years has been estimated at less than 1MT/Ha. Inputs for maize production (such as hybrid seeds, fertilizers, and pesticides) 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 about 30% of the total national consumption requirement.

Crop and livestock-based activities are the main source of income for nearly 60% of households. However, more than 95% of the households cannot produce sufficient food to meet their own requirements. Even for those who have adequate land, home grown food often lasts less than five months of the year, even in good years. Competing land uses and growing population have pushed farmers onto marginal lands, while prime agricultural land has been taken over by settlements. The average area cultivated is estimated at 1.3ha and only 11% of households cultivate more than 3 ha.

Another key feature of the agricultural context in Lesotho is the extremely high level of HIV/AIDS infection. The main thesis is that HIV/AIDS reduces the labour potential of rural households – because those responsible for agricultural labour are either sick, looking after the sick or looking after orphaned children. Other impacts related to agriculture include the erosion of assets (for example sale of livestock to meet medical expenses and subsequent loss of draught oxen for ploughing). It is important to note, though, that it is not just agricultural labour that is affected by HIV/AIDS. Workers in other sectors are retrenched when they become ill, and many of these workers are returning to rural areas in Lesotho.

There are significant debates underway in Lesotho about trends in agricultural production and thus the realistic future role for agriculture in poverty reduction and economic growth. In part these debates arise from contested data: the official government statistics have not matched the FAO/WFP Crop and Food Supply Assessment figure and the National Early Warning Unit figure for the past few years. These conflicting figures provide evidence that the country is without accurate production figures and a strong historical database. However, whatever the true production figures, it is clear that agricultural production in Lesotho is highly variable, in part due to high variation in the amount and timing of rainfall.

Recognizing the importance of production estimates in better targeting and planning of food assistance in the country, DMA requested WFP and FAO to support this rapid assessment of the summer cropping season in Lesotho.

2. METHODOLOGY

2.1 Mission Objectives

The mission was primarily concerned with examining food availability in terms of overall food production and the likely impact of any deficit on food security for the 2006/07 season. In coordination with stakeholders from the Ministry of Agriculture and Food Security, Bureau of Statistics and Disaster Management Authority, the WFP/FAO mission sought to:

- Assess the area planted of main crops such as Maize, Sorghum, Beans and Wheat, compared to potential and normal seasons;
- Forecast the expected yields and national production aggregates for these crops; and
- Provide guidance on the condition and mortality of key livestock (cattle and sheep) in relation to quality of fodder/forage availability and overall quality of range lands.

2.2 Data Collection

Given the time constraints, this mission was heavily reliant on secondary data. Meetings with BoS, LVAC, MoAFS, DMA, WFP and FAO were a starting point to locate secondary information sources and to solicit the informal impressions of officials on crop prospects, factors influencing current season production, and food security.

The primary data collection plan was stratified by agricultural zones. The country was surveyed by three teams that were divided across major agro-ecological zones. Each of the 10 districts was visited and a total of 101 purposively selected farmers were interviewed. Three teams, each led by an agronomist, were briefed regarding questionnaires and check lists (see Annex 2) before going to the field. Farm interviews formed the core of field activities (crop inspections and measures were undertaken in the presence of the farmer).

2.3 Analysis

The analysis was conducted by all mission members and the findings have been extensively discussed with the different stakeholders involved in the exercise. It is virtually impossible for such a brief mission to make independent estimates of cultivated area, hence, the official data of area planted, cross-checked against time-series data, served as the basis of the mission's statistics. Factors that may have affected the area harvested have then been carefully analysed and best estimates of harvested areas generated by the team. It is important to note that the team decided to use the CFSAM source as a basis for its calculation of areas harvested. The data set of area planted in summer by crops and districts/zones provided by the Bureau of Statistics appears to differ, although the final production estimates tend to be similar. Finally, yield estimates have been defined based on field measurements, agronomist's observations and on comparison to the regional average and to the previous year.

2.4 Limitations

Achievement of the mission objectives was limited by the:

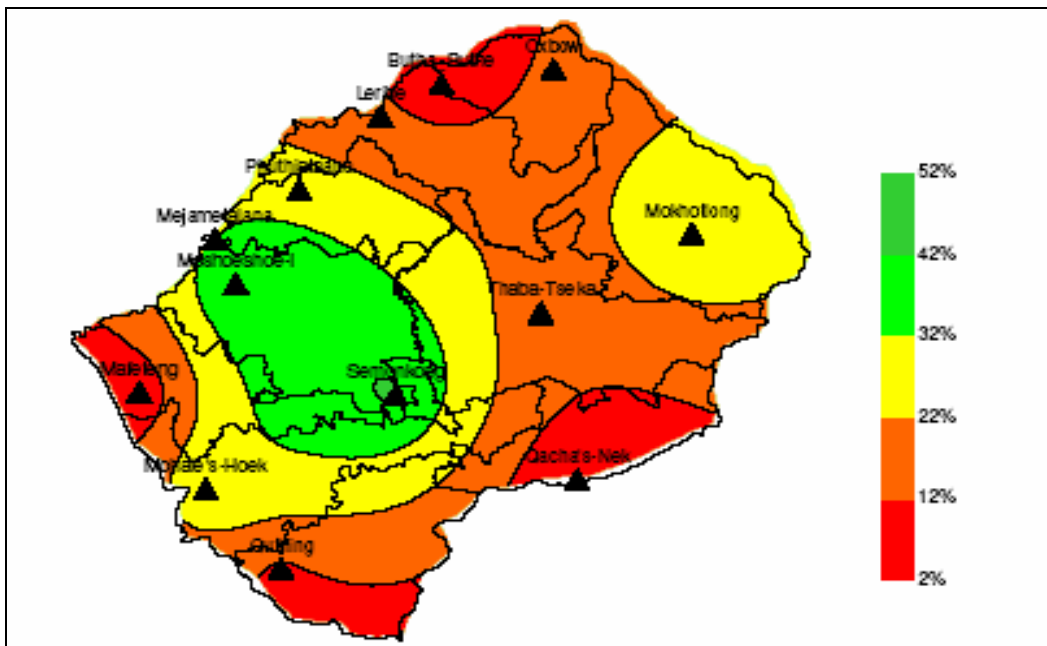
- Timing of Field Work: the field work took place at a time when many of the DAOs and district-level extension workers were called to Maseru for the annual agricultural show.
- Secondary Data: the mission relied heavily on secondary data and specifically time-series data from BOS and previous CFSAM exercises. The already reported discrepancies existing in the time series data for Lesotho has been challenging when arriving at forecasts.

- Length of Mission: finally, the limited amount of time available to the mission was a constraint, as the majority of variables had to be generated. Full agricultural crop surveys are based on a regular data collection throughout the cropping season. This exercise cannot replace a regular monitoring survey.

3. GENERAL FACTORS AFFECTING 2006 PRODUCTION

3.1 Rainfall and Weather Patterns

Agricultural production is predominantly subsistence-oriented and rain-fed. The latter makes production susceptible to fluctuations in weather patterns. According to the Lesotho Meteorological Services¹, cumulative rainfall in 2006 was normal to above normal throughout the country. Qacha's Nek registered the lowest cumulative rainfall, followed by Mafeteng and Butha-Buthe. The rest of the country registered relatively improved cumulative rainfall, of which the percentage departure from normal varies between 12% and 42% (positive deviance). Cumulative rainfall since September 2005 has played a very important role in that water levels have increased under ground and surface water is also sufficient for agricultural activities.



Source: Lesotho Met Services.

Fig. 1: Cumulative Rainfall, Departure from Normal Conditions September to April.

In general, rainfall levels were expected to have created a favourable environment for the main winter crops of wheat and peas. However the late heavy rainfall prevented farmers from getting into their fields to plant, reducing the area planted due to waterlogged soils. This was not the only climatic problem: early frosts and erratic hailstorms both contributed to a weather pattern which affected not only the land area planted but also adversely affected harvests. Some areas, especially in the foothills, were badly hit by early frosts from the end of February through April, due to late planting (December-January), due to late rains.

Lesotho soils are mostly thin and underlain by impermeable rock leading to poor water retention, flooding, erosion and loss of soil nutrients during high intensity rainfalls. Even moderate rainfall intensities can exceed the soil drainage and storage capacities, especially in the southern lowlands leading to water-logged fields and flooding in low-lying areas. Standing water in fields was a common sight during 2005/06 crop year, given heavy rainfalls, which resulted in reduced crop yields.

¹ Ten Day Agro-meteorological bulletin, Lesotho Meteorological Services, 21-30 April 2006.

3.2 Input Supply and Prices

Inputs are not subsidized by the government of Lesotho. NGOs, together with the MoAFS, are promoting conservation farming and the use of compost and manure. In the lowlands, though, a significant number of farmers use purchased chemical fertilizers. Some households mixed very small amounts of chemical fertilizers with manure and applied them at well below optimal doses to their fields. These low doses, applied to nutrient deficient soils, are resulting in poor crop development and low expected yields. Farmers in the lower yielding areas of the country – especially the mountains – do not usually purchase chemical fertilizers, and make limited use of animal manures.

Hybrid seeds are rarely used, except by the larger farmers of the northern Lowland areas. In the lowlands, seeds are purchased from local traders and/or neighbours as well as from South African markets. The district level agricultural show is an interesting opportunity for farmers to share their experience and exchange agricultural inputs. The mission observed a larger capital investment in the form of agricultural inputs and land tilling in the Northern Lowlands than in the Southern Lowlands. Cooperatives and NGOs play a critical role in agricultural input supply in the Southern Lowlands.

Land preparation is predominantly (over 70 percent) undertaken by draught animals. Animal traction is the principal form of ploughing in the Mountains and Foothills areas and land preparation is independent of the first rains since the soil moisture is always high. As most farmers own draught power, land tilling does not represent additional costs in these areas. In the higher-production areas of Leribe, Berea and Maseru, cultivation by tractor is undertaken by most farmers. Animal traction does play a role but animal ownership is limited. The high cost of tractor ploughing (an average of M180 per acre was reported against M150 last year), linked to the increased price of petrol, and the limited service available was reported as a serious impediment in timely land tilling this year; especially, because in the Lowland areas, tilling is normally undertaken following the first rains, when the level of soil moisture is sufficient.

3.3 Area planted and Area Harvested

Large areas of fallow land were observed by the mission, especially in the Southern Lowlands but also in the southern part of the Northern Lowlands (South Berea and Maseru). Many factors were identified by the team as possible causes:

- late rain that jeopardized early planting;
- the damaging effect of heavy rains on late plantings: some fields were washed away by heavy rainfall;
- the lack of access to agricultural assets in the Lowlands; especially access to tractor services;
- high dependency on the first rains in the lowlands for land tilling, particularly constraining after consecutive years of drought;
- an overall dependency on agricultural input support from non governmental organisations and other organisations; and
- the high level of inputs needed in unfertile and eroded lands in the southern lowlands, which produce little return on the investment. Given the poor performance of the previous cropping season and the very late onset of rainfalls this year, only a small number of farmers look on the production risks.

The team observed an expansion of the area planted to sorghum mainly in Mafeteng and Mohale's Hoek by 5%. This is to be expected after a poor rainfall year and in a season when rains are late, when farmers will obviously prefer to

take fewer risks by planting a more drought-resistant crop. Area planted to maize in Mohale's Hoek decreased by 58%, while at country level, this area decreased by about 14%. Table 3.2 provides further information.

Zone/Year	2003/04	2004/05	2005/06
Lowlands	16,086	17,616	16,851
Foothills	4,988	4,153	4,570
Senqu River Valley	4,023	4,021	4,022
Mountains	4,281	4,855	4,568
LESOTHO	29,378	30,643	30,010.5

Source: BOS.

Table 3.1: Sorghum Area (ha) planted in summer by zone, 2003 to 2006

Summer wheat is often grown on the uplands and is not usually in competition with maize and sorghum. The farmers' decision to plant is usually based on the ability to plough the field. Seed is saved from year to year and often little fertilizer is used, so there is less risk of losing any money invested with wheat than with maize in case of crop failure.

In the Lowlands and Senqu River valley areas, area planted has been the critical variable for this cropping season since most of the fields performed well. In the Mountains, on the contrary, very little fallow land has been reported and the key variable has been the yield.

There were no reports on areas lost due to water logging, hail storms or flash floods that were made available to the team at the district level. Therefore, the agronomist team leaders estimated, based on their field observation, their local knowledge and discussions with key informants, a percentage of increase/decrease of area planted this year for the main cereal crops (maize, sorghum and wheat):

District	Maize (ha)			Sorghum (ha)			Wheat (ha)		
	2004/05	2005/06	Variation	2004/05	2005/06	Variation	2004/05	2005/06	Variation
Butha-Butha	7,492	7,118	-5%	1,422	1,351	-5%	172	163	-5%
Leribe	26,205	23,584	-10%	4,118	3,706	-10%	140	126	-10%
Berea	23,960	20,366	-15%	5,784	4,917	-15%	0	0	
Maseru	22,877	18,302	-20%	5,099	4,334	-15%	2,221	2,110	-5%
Mafeteng	22,277	21,163	-5%	6,290	6,605	5%	253	240	-5%
Mohale's Hoek	17,043	7,118	-58%	6,312	6,628	5%	833	791	-5%
Quthing	9,802	9,312	-5%	3,308	3,143	-5%	927	881	-5%
Qacha's Nek	4,485	4,597	2.5%	2,126	2,179	2.5%	1,201	1,231	2.5%
Mokhotlong	7,064	7,080	0.2%	37	38	2.7%	3,429	3,515	2.5%
Thaba-Tseka	20,417	20,500	0.4%	1,607	1,623	1%	1,334	1,367	2.5%
LESOTHO	161,559	139,139	-13.9%	36,104	34,523	-4.4%	10,510	10,425	-0.8%

Source: CFSAM and assessment estimates.

Table 3.2 Total Cereal area harvested, 2004 to 2006 by Crop and District.

Calculations were also made using BOS data. However, some of the figures provided do not reflect the mission's observations. For instance, if only looking at maize, BOS estimates of area planted this year are always higher than last year with exceptions in Quthing and Qacha's Nek. A 32% increase is also expected in Mokhotlong that is contradictory to the mission's observations.

District	Maize (ha)				
	2004/05 BOS	2005/06 BOS	Variation	2005/06 CFSAM	Variation
Butha-Buthe	4776	5311	11%	4537	-5%
Leribe	20840	21908	5%	18756	-10%
Berea	18729	19906	6%	15920	-15%
Maseru	18230	18886	4%	14584	-20%
Mafeteng	19390	20340	5%	18421	-5%
Mohale's Hoek	12509	12568	0.5%	4537	-64%
Quthing	7215	6962	-4%	6854	-5%
Qacha's Nek	2812	1708	-39%	2882	3%
Mokhotlong	4901	6500	33%	7080	45%
Thaba-Tseka	10609	10632	0.2%	20500	93%
LESOTHO	120012	124723	4%	114071	-5%

Source: BOS, CFSAM and own assessment.

Table 3.3: Total Maize Area harvested in Comparing BOS and CFSAM Data.

3.4 Yield

Crop yields (especially sorghum and maize) are expected to be average in most parts of the country and above average in the Northern part of the country. Summer wheat, grown in many upland areas, suffered from drought stress at first and from heavy rains at harvest time. As a result, yields are down across the country. A striking feature of many crops is the poor quality of weeding, with many crops established but never weeded. This lack of weeding, related to the continuous heavy rain during the growing season, will negatively affect yields particularly in the southern Lowlands. Finally, some areas especially in the Foothills and Highlands have been badly hit by early frosts which occurred in late February and throughout March and April, because the planting was very late (December-January) given the late rains. This frost occurred in many cases before the maize reached physiological maturity. Grains in these areas may not be suitable for consumption.

The mission's yield data, collected from 101 households in all districts of the country, complemented with crop cuts and measures allowed an independent confirmation of farmers' reports. The data was used together with government statistics and previous mission reports to estimate yield and production for the 2005/06 season. These calculations reflect as far as possible the lower yield expected in Highlands and Foothills due to early frost, the good yield expected in the Northern Lowlands and the overall average performance of crops due to weeds and heavy rains in the Valley and Southern Lowlands. It is worth reporting here the observation of FAO this year². High yields³ of maize are reported from 160 ha of land in various plots around Maseru. These yields have been made possible by correct planting and efficient use of herbicides, which prevented the growth of weeds and so, reduced crop competition. This shows that Lesotho soils are capable of producing higher yields if appropriate farming practices are applied. Similarly, on poorer soils, farmers in Qacha's Nek district obtained high yields from their plots which were farmed using Conservation Agriculture techniques, while neighbouring farms, using conventional techniques, failed to produce a good yield.

² Update on Current Agricultural Season: Southern Africa, James Breen, FAO Regional Emergency Agronomist, April, 2006

³ Four hand-held ultra low volume sprayers were used immediately following the four – row planter to spray Primagram, an effective pre-emergence spray.

Finally, it is important to underline that the mission's crop cuts and cob measurements of maize during the field trip always indicated very high yields, far higher than the national average. Measurements for the Lowlands gave an overall average yield close to 4 MT/ha. Given the importance of the time-series data for this exercise, the mission adjusts its observation to be as consistent as possible with the overall observations. Nevertheless, the mission questions the statements made in many recent reports of a drastic decrease in yields observed all over the country. Consistent and accurate agricultural statistics based on solid data are imperative for Lesotho.

District	Maize		Sorghum		Wheat	
	Yield t/ha		Yield t/ha		Yield t/ha	
	2004/05	2005/06	2004/05	2005/06	2004/05	2005/06
Butha-Buthe	0.57	1.3	0.47	0.7	0.7	0.7
Leribe	0.82	1.1	0.52	0.7	0.8	0.8
Berea	0.35	0.8	0.4	0.65	0	0
Maseru	0.85	0.9	0.53	0.6	0.7	0.7
Mafeteng	0.4	0.6	0.55	0.65	0.4	0.3
Mohale's Hoek	0.35	0.5	0.4	0.5	0.65	0.35
Quthing	0.3	0.5	0.3	0.4	0.6	0.3
Qacha's Nek	0.41	0.2	0.35	0.2	1.3	0.5
Mokhotlong	0.65	0.4	0.3	0.2	1.3	0.5
Thaba-Tseka	0.7	0.5	0.55	0.4	1	0.7

Source: CFSAM and assessment estimates.

Table 3.4: Yield of Maize, Sorghum and Wheat for 2005/06 compared to 2004/05.

District	Maize		Sorghum		Wheat	
	Yield t/ha		Yield t/ha		Yield t/ha	
	2004/05	2005/06	2004/05	2005/06	2004/05	2005/06
Butha-Buthe	0.89	1.3	0.66	0.7	0.70	0.7
Leribe	1.03	1.1	0.74	0.7	0.80	0.8
Berea	0.45	0.8	0.46	0.65		0
Maseru	1.07	0.9	0.60	0.6	0.70	0.7
Mafeteng	0.46	0.6	0.59	0.65	0.40	0.3
Mohale's Hoek	0.48	0.5	0.43	0.5	0.65	0.35
Quthing	0.41	0.5	0.34	0.4	0.60	0.3
Qacha's Nek	0.65	0.2	0.66	0.2	1.30	0.5
Mokhotlong	0.94	0.4	0.30	0.2	1.30	0.5
Thaba-Tseka	1.35	0.5	0.65	0.4	0.51	0.7

Source: BOS and assessment estimates.

Table 3.5 Yield of Maize, Sorghum and Wheat for 2005/06 compared to 2004/05.

Generally, 2004/05 maize yields are higher based on BOS estimates. This means production increases for 2005/06 and a reverse for Maseru. For sorghum, again the BOS 2004/05 yield estimates are higher than CFSAM, further making increases with reversal trend for Leribe. For both maize and sorghum, yield declines will be magnified for Qacha's Nek and Mokhotlong and Thaba-Tseka.

3.5 Crop Production

Two estimates are provided here, which are simple **multiplications of the yield and areas** described before: one uses (BOS estimates of the area planted) in 2005/06; while the other is based on (CFSAM 2004/05 figures) and our own assessment (See Annex 4 for detailed calculations).

District	2000/01	2001/02	2002/03	2003/04	2004/05	Five-year average	2005/2006	Percent of last year's production
Butha-Buthe	4.8	3.7	2.9	6.2	3.3	4.2	7.9	236%
Leribe	29.2	31.2	34.3	23.7	8.4	25.4	26.5	315%
Berea	25.5	23.2	13.3	10.4	20.4	18.6	18.9	93%
Maseru	32.2	23.3	15.1	17.4	12.9	20.2	21.4	165%
Mafeteng	31.9	19.1	16.2	13.1	8.1	17.7	16.1	198%
Mohale's Hoek	24.6	6	14.2	9.6	15.6	14.0	9.5	61%
Quthing	9.6	2.8	6.7	5.5	6.8	6.3	5.2	77%
Qacha's Nek	2.6	4.5	0.6	1.3	2.1	2.2	1.0	48%
Mokhotlong	6.8	10.7	6.2	6.5	4.4	6.9	4.4	102%
Thaba-Tseka	9.4	10.1	9.4	10.4	13.9	10.6	8.0	57%
LESOTHO	176.6	134.6	118.9	102.9	95.9	125.8	118.9	124%

Source: Bureau of Statistics and Assessment estimates

Table 3.6 Cereal production estimates ('000 tonnes) this year compared to 5-year average.

District	2000/01	2001/02	2002/03	2003/04	2004/05	Five-year average	2005/2006	Percent of last year's production
Butha-Buthe	4.8	3.7	2.9	6.2	5.1	4.5	10.3	202%
Leribe	29.2	31.2	34.3	23.7	23.7	28.4	28.6	121%
Berea	25.5	23.2	13.3	10.4	10.7	16.6	19.5	182%
Maseru	32.2	23.3	15.1	17.4	23.7	22.3	20.5	86%
Mafeteng	31.9	19.1	16.2	13.1	12.5	18.6	17.1	137%
Mohale's Hoek	24.6	6	14.2	9.6	9	12.7	5.7	63%
Quthing	9.6	2.8	6.7	5.5	4.5	5.8	6.0	134%
Qacha's Nek	2.6	4.5	0.6	1.3	4.1	2.6	2.0	49%
Mokhotlong	6.8	10.7	6.2	6.5	9.1	7.9	4.6	50%
Thaba-Tseka	9.4	10.1	9.4	10.4	16.5	11.2	11.9	72%
LESOTHO	176.6	134.6	118.9	102.9	118.9	130.4	126.2	106%

Source: CFSAM and Assessment estimates

Table 3.7 Cereal production estimates ('000 tonnes) this year compared to 5-year average.

3.6 Winter Cropping Forecast

Abundant rainfalls will guarantee sufficient soil moisture for promising winter crops. The mission field work confirms that many farmers plan to plant widely, especially those who failed during this summer cropping season. Better winter crop monitoring should be established to allow timely winter crop estimates.

District	Wheat (Ha)	Peas (Ha)
----------	------------	-----------

	2003/04	2004/05	2005/06	2003/04	2004/05	2005/06
Butha-Buthe	696	277	487	103	61	82
Leribe	1,958	2,139	2,049	183	717	450
Berea	2,703	1,381	2,042	123	786	455
Maseru	827	1,518	1,173	27	518	273
Mafeteng	3,171	2,629	2,900	516	923	720
Mohale's Hoek	1,442	760	1,101	188	141	165
Quthing	11,945	98	623	67	0	34
Qacha's Nek	0	0	0	0	0	0
Mokhotlong	0	0	0	0	0	0
Thaba-Tseka	0	0	0	0	0	0
LESOTHO	22,742	8,802	10,374	1,207	3,146	2,179

Source: BoS

Table 3.8 Area planted by crop type and district 2005/06 compared to past 2 years.

3.6 Livestock

The livestock sector continues to provide a significant source of rural income, with cattle, sheep and goats ranking equal in importance. Meat, wool and mohair are considered important sources of revenue. Good rainfall has also assisted the livestock industry, with better than average grazing for the large flocks of sheep and goats and herds of cattle. No major disease outbreaks were reported. FAO provided acaricide to inject all sheep against Sheep Scab.

A reported decrease in livestock numbers may be due to high sales and increased numbers of cattle used for ceremonies (funerals). However wool and mohair production is increasing, particularly in Mokhotlong area due to new breeding stock and supplementary feeding. Proper vaccination of livestock has also helped. Overall the conditions of animals are good for both small and large stocks. Milk remains an important source of nutrition for households.

No statistics have been provided by district agriculture authorities. The mission only analysed data provided by interviewed farmers, and therefore is unable to report more on livestock population and overall livestock production this year.

4. DISTRICT LEVEL ANALYSIS

4.1 Butha-Buthe

The district is expected to have more than double cereal production for the 2005/2006 cropping season, regardless of whether CFSAM or BOS figures were used for 2004/05. The sandy nature of soil in the district, giving better drainage, made the abundant rains only beneficial for production. In addition, winter cropping prospects are excellent due to the good soil moisture. All the measurements and farmer interviews tended to confirm an expected production of two to three times more than last year all across the district. However, area under cultivation is relatively small.

Farmers rely mainly on locally purchased hybrid seeds and use of fertilisers (although often in insufficient quantities). Prices of basic commodities tend to be higher this year and as always, are driven by the South African market. It is important to mention here that the expected higher prices for maize products due to a limited production in South Africa this year (after a bumper harvest in 2004/05). Pasture conditions greatly improved with the arrival of summer rains. Problems faced by herders, however, included poor winter pastures, parasites, stock theft, diseases (anthrax, sheep scab, parasitic diseases, enterotoxaemia, and blue tongue), poor availability of medicines and stock theft.

4.2 Leribe

Leribe is the highest producing district in Lesotho, and had large areas that were adversely affected by the late onset of the rainy season. No major changes in cropping patterns have been reported; although low fertilizer use, limited use of improved varieties and shallow ploughing will impede yields here. Agricultural input supply is good and most of the farmers rely on local purchase for their supply. The costs of production in this Northern Lowlands zone are very high and it may be a cause for reported decrease in areas planted this year again. The loss of good arable land to urbanisation has been reported as a serious issue in Maputsoe.

The foothills part of Leribe (mainly Mahobong area) was affected by early frost in April. The heavy and abundant rains also limited weeding (farmers not being able to go to their field on time and weeds not getting dry), but overall production for the district is expected to be fairly good. Animal production is limited by stock theft, shortage of pasture last winter, loss of pasture land, parasites, anthrax, blue tongue, scab, gall sickness, worms. Pasture conditions are now very good. Newcastle disease was reported to be very serious this year.

4.3 Berea

The district, among the top five maize producing districts, appeared by observation and all accounts to be having a better than average 2005/06 agricultural season. However, the area planted for maize, beans and sorghum appears to be less than last year especially in the southern part of the district, when based on CFSAM estimates. Higher than average yields, for maize and sorghum, are expected in most parts of the district. The cropping season has been particularly successful for those who managed to till their land early in the season.

Water logging caused serious damage especially in the Thale area. The bean crop was generally very poor due to the excessive late-season rains. Winter cropping prospects are very good and many farmers who didn't succeed with the summer cropping expressed their willingness to go for winter cropping this year. Most of the farmers purchased seeds and small (insufficient) quantities of fertilisers locally. Some reported buying in South Africa. Pasture availability is generally good after the onset of rains and the large fallow lands.

4.4 Maseru

Maseru is comprised of two distinct agro ecological zones—lowlands and foothills—with the majority of cereal production coming from the lowlands. The onset of good rains was variable and took place very late after December. Thus, only a few farmers took the risk of planting and the level of fallow land is expected to be much higher than last year. It worth also noting, that many fields have been planted to sorghum this year and did perform well. Heavy rains have caused water logging and affected the yield of maize fields. In the foothills hail storm were also responsible for crop damages.

Agricultural inputs are available in Maseru town but remain unaffordable for a large number of potential users. Interviewed farmers reported long distances to agricultural input shops and suppliers as a limiting factor. In addition, dependence on tractor for land tilling, compounded with the limited financial resources of farmers present serious impediments for production. Few can afford the increasing cost of ploughing (due to rising petrol costs). Timing is also an issue when few tractors are available in certain areas. Livestock condition is good but their number is in decline due to theft, ceremonies and overall pauperisation of farmers over the past few years. Newcastle disease was severe this year and killed a number of chickens.

4.5 Mafeteng

The district is mainly a Southern Lowland area that has been hard hit by drought in recent years. Mafeteng has benefited from agricultural projects in the past. Hence farmers are considered well informed and highly trained. Crop diversity is large in the district and more and more farmers are involved in fodder cultivation, such as *bana* grass. Farmers are able to access agricultural inputs from cooperatives and traders nearby or even neighbours during event such as agricultural shows. However the prices for good quality seeds and fertilisers remain prohibitive, for most of poor farmers (M130 per 50kg bag of NPK fertiliser). Many farmers resort to kraal manure.

The level of fallow land is expected to be very high although crops performed well eventually for those who managed to plant on time. Many farmers decided not to invest in maize production, but continue to plant sorghum. Heavy rains came in late summer, causing frequent flash floods have been reported often. Water logging was common impediment to good maize yield.

Area planted to maize is predicted to be 5% less than last year, while a 5 % increase is expected for area planted to sorghum. Yields are close to average this year. Similar to much of the country, winter pastures are abundant following good rains. Livestock condition is reported to be good.

4.6 Mohale's Hoek

Mohale's Hoek encompasses significant amounts of the four agro-ecological zones of Lesotho—lowlands, foothills, mountains and the Senqu River valley. Good rains started very late in January this year. Rainfall has been high but uneven. The first frost occurred in the Senqu River Valley areas in April.

Cooperatives are very dynamic in Mohale's Hoek and facilitate access to agricultural inputs although prices remain very high. The role of agricultural extension services is very strong, backed by NGOs such as Catholic Relief Services (CRS), World Vision International (WV), Rural Self Help Development Authority (RSHDA) and some agricultural programmes such as Sustainable Agricultural and Natural Resource Management Programme (SANReMP). Sorghum was planted widely this year and is expected to produce average to above average production. Maize yields, for those who planted on time and were able to till their land prior to the heavy rains of January are expected to be reasonably good. The big

impediment to this season's production is the limited amount of land under cultivation. A 58% decrease compared to last year is expected for area planted in maize this year while 5% more land have been planted in Sorghum. Some areas especially in the foot hills have been badly hit by early frost (March –April, 2006), because the planting was very late (December-January) due to late rains. As an average for the district, the maize yield for Mohale's Hoek is thus expected to be close to the five-year average.

Degradation of grazing lands for cattle, sheep and goat rearing has led to a decline in the extensive animal production that was traditional. Consecutive droughts and years of stock theft have contributed to the decline. In some areas, overstocking contributes to the degradation of rangelands.

Farm production prices collected during farm visit appear to be very high, especially for small livestock and chicken, with prices of between M30 to M50 per chicken observed. The district is benefiting from a relatively large number of shops and supermarkets.

4.7 Quthing

Quthing lies in the Mountain and Senqu River Valley agroecological zones. Quthing has not been thoroughly assessed by any of the three teams. However the agronomists leading the Highland and Senqu River valley teams, had opportunities to visit the area and agreed on certain key features:

- there has been a reduction of land under cultivation this year.
- all the crops in the foothills areas performed very well and reached maturity before the onset of the frost;
- concerns have been raised for the wheat production, since heavy rainfall and sometimes hails storm have been reported at harvest time.

Livestock produced in the district include sheep, goats, cattle and horses. Rangelands rank from good to very good. The condition of most stock is generally good.

4.8 Qacha's Nek

Qacha's Nek is the district that generally contributes least to national cereal production. Most of the areas in Qacha's Nek, except Qhoalinyane, may experience crop failure. The area experienced early frost in March that compounded the effects of late planting due to the late arrival of rains, devastating the grains before they reached maturity. In addition heavy rains prevented some farmers from harvesting their wheat on time. Although slightly larger area has been planted this year, yields are expected to be very low. Farmers mainly rely on their own harvest for seeds supplies and use very little fertilisers. It was frequently reported that farmers using conservation farming techniques performed better this year.

Price of livestock in Qacha's Nek was the lowest reported in the area. For example, cattle prices range from M1000 to M1500 depending on the age and condition. Livestock found in Qacha's Nek include sheep, goats, cattle, horses and donkeys. Rangelands are extensive and in very good condition. The condition of livestock is reported to be very good. Most households own livestock given the abundance of good rangeland grazing. Livestock plays a major role in the food economy of poor households, especially with the sale of wool and mohair.

4.9 Mokhotlong

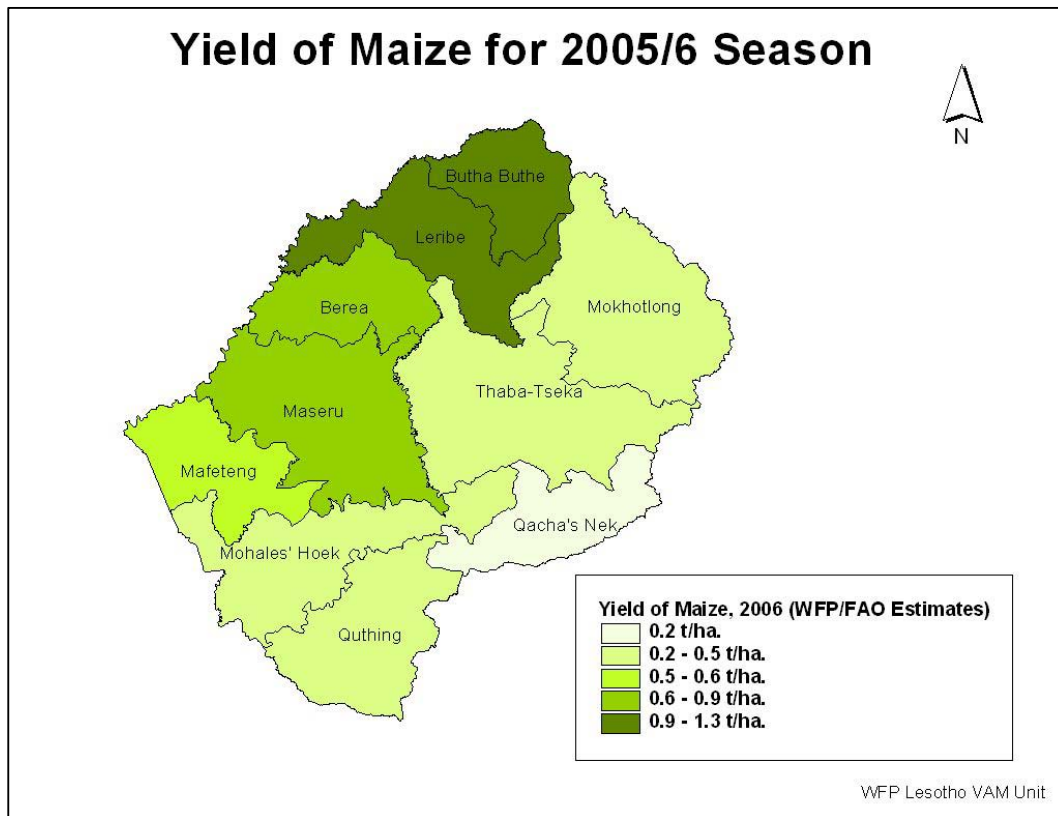
A mountainous district, Mokhotlong relies almost exclusively on summer crops due to cold temperature in winter. Soil moisture reserves for the summer planting season started to build up in winter. Even though wheat planting was timely (August), considerable areas were lost due to dry spells experienced from October

to December. Commonly grown crops in Mokhotlong include wheat, maize, beans, peas, lentils and a limited area of sorghum. Only a few farmers in the district use commercial fertilizers and hybrid seeds. Farmers mainly rely on their own production for seeds and manure for fertilization.

Livestock condition is very good and pasture is abundant. There is a reported decrease in livestock numbers due to high sale and increased consumption or sales numbers for ceremonies (funeral). However wool and mohair production is increasing especially thanks to new breeding stock and supplementary feeding. Proper vaccination of livestock has also helped. Milk remains an important source of food for households.

4.10 Thaba-Tseka

Thaba-Tseka received excessive rains, coupled with early frost and heavy snow in April. Crop prospects are very poor compared to last year mainly due to the on set of early frost and overall low reliance on agricultural inputs, although the area planted was good. Prices are high and access to market often reported as an issue. Barter of farm products are common in the district. Livestock produced in the district include small ruminants, cattle and horses. The condition of livestock and rangelands is generally good.



Source: Assessment Estimates.

Map 2. Per Hectare Yields for Maize by District, 2006.

5. FOOD SUPPLY AND DEMAND SITUATION (2006/07 MARKETING YEAR)

5.1 Cereal Markets and Prices

Prices of basic commodities were collected by the team in each district capital. Prices vary from one place to another. However the price variation observed in the same location between different brand and different shops is comparable to the differences observed between locations. Figure 5.1 provides a breakdown of the market survey.

Commodity	Unit	Maput-soe	Leribe	Butha-Buthe	Mohale's Hoek	Quthing	Mafeteng	Qacha's Nek	Mokhotlong
Maize meal	2.5kg	6.15	7.66	4.94	6.90	4.99	6.85	6.25	6.74
Sorghum	1kg	4.73	4.70	3.00	5.20	5.15	5.70	4.18	5.29
Rice	1kg	6.02	4.99	6.77	6.20	7.65	6.45	5.23	7.80
White Sugar	1kg	5.08	5.79	4.84	6.37	5.69	6.09	7.58	5.76
Veg Oil	750ml	5.50	6.99	4.87	7.25	6.32	7.11	6.71	8.70
Soap	1 kg		18.00	19.95	21.62	21.87	21.95	23.80	21.11
Paraffin	1l	4.50	4.50	4.05	4.45	4.40	4.50	4.90	5.04

Source: Assessment estimates

Table 5.1: Market Pricing of Basic Commodities (Maloti), 5 – 9 June 2006.

Prices are driven by the South African Market. Traders interviewed expected an increase in prices, which has already started, especially for maize meal, since the production prospects for South Africa are far less than last year and the devaluation of the rand against the dollar is increasing. In June, Johannesburg local maize prices rose to their highest levels in two years following a weakening of the rand to a 10-month low against the dollar.

Source: SAGIS
Weekly Bulletin,
June 2006

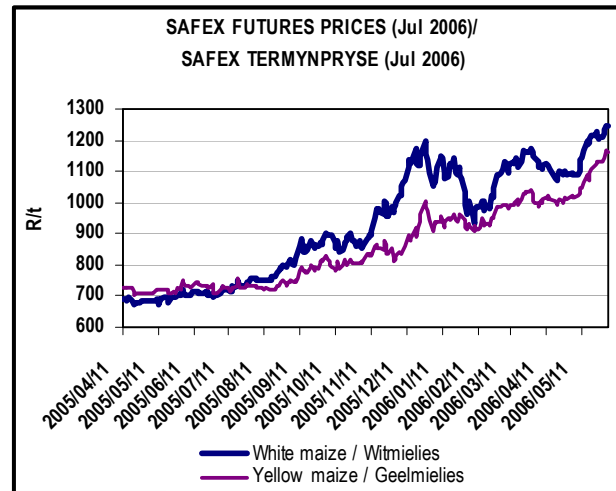


Figure 5.1: SAFEX Future Prices, White and Yellow Maize.

It is worth also noting that supply of paraffin has been said to be a problem in many locations and the price information collected indicates a large increase compared to last year.

5.2 Cereal Supply/Demand Balance, 2006/07

The forecast of the cereal supply-demand situation for the marketing year 2006/07 (April/March) is based on the following assumptions and Mission observations:

- Opening stocks were provided by the Ministry of Industry, Trade and Marketing for the current marketing year. The closing stocks are based on two weeks of maize and one month of wheat consumption.

- The mid-marketing year 2006/07 population is estimated at 1.8 million from the preliminary findings of the 2006 census⁴ (see Annex 5).
- Per capita apparent consumption rates per year are estimated to be 127 kg of maize, 42 kg of wheat and 12 kg of sorghum providing a daily kilocalorie intake of 1800 kcal per capita and per day.
- "Other uses" covers essentially post-harvest losses and seed use. These are estimated at 6 percent for maize, sorghum and wheat.

	Maize	Wheat	Sorghum	Total
Total Utilization	242.3	80.1	22.9	345.3
Food use	228.6	75.6	21.6	325.8
Other use	13.7	4.5	1.3	19.5
Domestic availability	108.7	46.5	17.8	173.0
Opening stock	5.7	40.9	0.0	46.6
Production	103.0	5.6	17.8	126.5
Import requirements	133.6	33.6	5.0	172.3
Commercial imports	141.7	80.2		221.9
food aid				
- Food aid in stock and pipeline	21.7	0.0	0.0	21.7
- uncovered deficit	29.7	46.5	-5.0	71.2

Table 5.2: Cereal Balance Sheet for 2005/06 ('000 tonnes).

DMA-NEWU estimates that Lesotho has the capacity to commercially import about 222,000 tonnes of cereals, that is more than the food requirement for the country. Taking into account cereal food aid in WFP and C-SAFE stocks and pipeline of about 21.7 tonnes (as at 1 April 2006), there is an expected overall surplus of 71,000 tonnes of cereals at national level.

Lesotho has an open economy allowing free flow of goods and services across its borders with South Africa. This greatly facilitates the role of commercial imports in bridging the food deficit gap. Commercial cereal imports have always dominated the coverage of the domestic cereal gap⁵, averaging 78% of the domestic cereal gap and about 63% of the national cereal requirement. This expected national food surplus masks however various food access difficulties at household level see for instance the recent DMA-WFP targeting exercise, Uncovering Chronic, Persistent Vulnerability to Hunger in the Southern Lowlands and Senqu River Valley and the coming LVAC report. However, local purchases for targeted food programmes in deficit areas (highlands) are readily available.

⁴ A second estimate has been done by DMA NEWU considering a population number of 2.4 million (based on projection from the last census, using an annual growth rate of 2.1 percent).

⁵ Food Aid, Food Production and Food Markets in Lesotho, an analytical review, WFP, January 2006.

6. CONCLUSION

Although initial prospects for the summer cropping season in Lesotho were optimistic, the country will again face an average production year. However, as confirmed in a recent DMA-WFP food security analysis⁶ in the Southern Lowlands and Senqu River Valley, own agricultural production provides a significant source of livelihood for only a few poor-rural households, either through the provision of food consumption or through the sale of crops. A large number of poor rural households do not have access to agricultural assets, including land, and many those with land lack the labour or inputs to utilise them. Therefore, the price of food and the sources of income are the key determinants of food for these households.

While a focus on the relationship between food availability and food security raises questions about agricultural production and imports, a focus on food access raises questions about people's purchasing power and their broader livelihoods beyond agriculture. For these households, food insecurity is a direct result of loss of purchasing power, not of declining agricultural production. Increasing agricultural productivity cannot provide a solution to the crisis that they face. While inflation contributed to escalation of food prices, the key questions the VAC has to answer this year are about the level of reliance of poor household in the uplands on own agricultural production and the overall capacity of a large number to deal with increasing prices of basic commodities.

The problem all stakeholders face in Lesotho is access to reliable data. It seems that the agricultural sector is symptomatic of a number of dysfunctions that should be addressed urgently. One major consideration is the lack of coordination and communication between the different levels, i.e. the central role played by the national ministries and BOS in processing and analysing data versus the data collection at (sub-) district level. There is a clear lack of results due to lack of financial resources for transport and technical know-how among government staff members. But at the same time the quality of information produced by the relevant sectoral information components (e.g. crop forecasting, livestock (diseases) monitoring, market information systems, and HIV/AIDS surveillance) is far from perfect. A plan is needed to make substantial improvements in data management under the leadership and coordination of the BOS, together with the responsible line ministries supported by UN agencies and donors.

There is an urgent need finally to recognise the importance of production data in any type of poverty and vulnerability analysis at country level. Stakeholders must ensure that the relevant bodies have the means to guarantee that proper agricultural statistics are collected on a yearly basis, keeping in mind that satellite imageries are now providing easy cross checking tools.

⁶ Uncovering Chronic, Persistent Vulnerability to Hunger in the southern Lowlands and Senqu River Valley, Report of the DMA-WFP Targeting Exercise, March 2006.

ANNEX 1 - TOR

WFP Regional Assessment Officer - Food Security Specialist FAO and WFP Support to the DMA Agricultural Season Assessment

June 1-12, 2006.

Terms of Reference

- To provide support to the Disaster Management Authority's assessment of the current agricultural season.
- To co-lead a field survey with stakeholders from the Ministry of Agriculture and Food Security, Bureau of Statistics, Disasters Management Authority and FAO.
- To assess the area planted of main crops such as Maize, Sorghum, Beans and Wheat, compared to potential and normal seasons.
- To forecast expected yields and national production aggregates.
- To assess the condition and mortality of main livestock (cattle and sheep) in relation to quality of fodder/forage availability and overall quality of range lands.
- To liaise with major stakeholders such as the MoAFS - Department of Crops; MoAFS - Department of Planning and Policy Analysis; MoAFS - Department of Livestock; DMA - LVAC; BOS - Agriculture Department; NGOs, traders and farmers.
- To liaise with the Lesotho Vulnerability Assessment Committee on the current nature of vulnerability in Lesotho and to provide guidance to the LVAC on the current agricultural season.
- To comprehensively report on the current agricultural season and to support a presentation of same to relevant stakeholders.

ANNEX 2 – Team Itineraries.

Team 1

Monday	Buthe Buthe (Lowlands)	08.30 Meet with DOA, DDMO 09.30 Market Visit 10.30 Local Mill 11.00 – 16.00 11.00 – 13.00 Field visit to areas of good production. 13.30 – 15.30 Field visit to areas of bad production. 16.00 Proceed to Leribe for Wrap-UP
Tuesday	Leribe	08.30 Meet with DOA, DDMO 09.30 Market Visit 10.30 Local Mill 11.00 – 16.00 11.00 – 13.00 Field visit to areas of good production. 13.30 – 15.30 Field visit to areas of bad production. 16.00 Proceed to Berea for Wrap-UP
Wednesday	Berea/Maseru areas	08.30 Meet with DOA, DDMO 09.30 Market Visit 10.30 Local Mill 11.00 – 16.00 11.00 – 13.00 Field visit to areas of good production. 13.30 – 15.30 Field visit to areas of bad production. 16.00 Proceed to Maseru for Wrap-UP Possibility of Meeting with MoAFS
Thursday	Mafeteng	07.00 Depart Maseru 08.30 Meet with DOA, DDMO 09.30 Market Visit 10.30 Local Mill 11.00 – 16.00 11.00 – 13.00 Field visit to areas of good production. 13.30 – 15.30 Field visit to areas of bad production. 16.00 Proceed to Mohale's Hoek for Wrap-UP
Friday	Mohale's Hoek	08.30 Meet DOA, DDMO 09.30 Depart for Maseru 11.00 Regroup Maseru

Team 2 – Senqu River Valley

Monday	Qacha's Nek	08.30 Meet with DOA, DDMO 09.30 Market Visit 10.30 Local Mill 11.00 – 16.00 11.00 – 13.00 Field visit to areas of good production. 13.30 – 15.30 Field visit to areas of bad production. 16.00 Proceed to Qacha's Nek for Wrap-UP
Tuesday	Qacha's Nek - Quthing	08.30 Evaluate farms in Qacha's Nek. 11.30 Proceed to Quthing 14.30 Meet with DOA, DDMO 15.30 Market Visit 16.30 Local Mill Wrap up in Quthing.
Wednesday	Mohale's Hoek	07.30 Proceed to Mohale's Hoek 10.00 Meet with DOA, DDMO 11.00 – 13.00 Field visit to areas of good production. 13.30 – 15.30 Field visit to areas of bad production. 16.00 Proceed to Mafeteng for Wrap-UP Meet with Group 1 for recap.
Thursday	Mafeteng	08.30 Meet with DOA, DDMO 09.30 Market Visit 10.30 Local Mill 11.00 – 16.00 11.00 – 13.00 Field visit to areas of good production. 13.30 – 15.30 Field visit to areas of bad production. 16.00 Wrap up in Mafeteng
Friday	Mafeteng	08.00 Depart for Maseru 11.00 Regroup in Maseru

Team 3 Mountains

Monday	Buthe-Buthe - Mokhotlong	08.00 Depart for Mokhotlong Assess 5 farms in Buthe Buthe Mountains Assess 5 farms in Mokhotlong Mountains 16.00 Meet with DOA, DDMO Mokhotlong
Tuesday	Mokhotlong - Thaba Tseka	08.00 Depart for Thaba Tseka Assess 5 farms in Mokhotlong Assess 5 farms in Thaba Tseka 16.00 Meet with DOA, DDMO Thaba Tseka
Wednesday	Thaba-Tseka	08.00 Depart for Leribe Assess 10 farms in the Foothills zones. 16.00 Proceed to Leribe
Thursday	Leribe - Maseru	08.00 Depart to Maseru District Examine 5 farms in Lowlands Examine 10 farms in Foothills 17.00 Proceed to Maseru
Friday	Maseru	11.00 Regroup Maseru

ANNEX 3 – Field Survey Tools

DISTRICT AGRICULTURE AUTHORITY

Production

Crop	Area Planted		Area Lost		Area Harvested		Yield	
	04/05	05/06	04/05	05/06	04/05	05/06	04/05	05/06
Maize								
Sorghum								
Wheat								
Beans								
Peas								
Barley								
Other.....								
Sunflower								
Soja								

Explain any big changes between these years compared to last year:

Any changes in production pattern:

Winter crop prospects _____

Rainfall

Starting date:

Monthly distribution:

	04/05	05/06
September		
October		
November		
December		
January		
February		
March		
April		
May		
June		

How would you qualify the rainfall distribution this year?

- Timely Late;
High Low;
Even Uneven

Reported flood (area affected): _____

Comparable year: _____

Temperature

Date of first frost: _____

Pest and diseases

Specify any unusual pest or diseases having affected crops yield/ areas:

Severity (cf. past years):

Level of damage:

Action taken:

Agricultural Inputs - availability/ timeliness/ cost-prices

Fertilizers:

Pesticides:

Improved seeds:

Finance:

Tools and implements:

Livestock - conditions of production / yield-qty expectation (cf. past year)

Cattle:

Sheep:

Goat:

Access to land

Average size of land cultivated / household: _____

Average size of land hold/ household: _____

FARMER INTERVIEW

Family Name:

Village:

District:

Agro-Ecological Zone:

Date:

How many residents live in this household?

	Full time (9 months or more)	Part time (2-8 months)
Adults (15+ years)		
Children (0-14 years)		

Parameter	Last Year	This Year	Comments
Area of Land Holding (ha)			
Area Planted in Maize (ha)			
Area Planted in Sorghum (ha)			
Other Major Food Crop (specify)			
Yield in kg Maize/ha			
Yield in kg sorghum/ha			
Source of Seed (last harvest/local purchased/donated/ other (food aid, etc. _ specify)			
How Much Fertilizer/ha			
Price per bag of fertilizer			
Time of Main Planting/Replanting (Early/Late/Mid)			
Cash Crops Area and Production (Specify)			
Vegetable Crops (Specify)			
Number of Cattle			
Number of goats			
Number of Chickens			
Price of Maize per Kg			
Price of Sorghum per Kg			
Other major crop per Kg (Specify)			
Price of Cattle			
Price goats			
Price of Chickens			

Crop cuts and cob measurements:

- Select an average field, representative of the area, not having been harvested
- Select a 1 m² sample in the middle of the field
- Count the number of effective plants in that sample-plot. A plant is effective if it has at least one effective cob: _____
- Count number of cobs : _____

- Uncover the cobs and using a tape measure the length (which is covered by grain) of each cob in millimetres (mm) and record the results:

- Then check the dryness of the grain (since the cobs are collected at harvesting time we will assume they have fully dried) and weigh the grains obtained in this sample plot _____

=> Measured yield: _____

MARKET PRICING

District: _____ Village: _____ Enumerator: _____

Date : _____

Item	Seller 1			Seller 2			Seller 3			Average			
	Source/ Brand	Unit	Price	Source/ Brand	Unit	Price	Source/ Brand	Unit	Price	Unit	Price	Change compared to past weeks	Change compared to last year
FOOD													
Maize grain		1kg			1kg			1kg			1kg		
Maize flour		1kg			1kg			1kg			1kg		
Sorghum grain		1kg			1kg			1kg			1kg		
Rice		1kg			1kg			1kg			1kg		
Peas		1kg			1kg			1kg			1kg		
Beans		1kg			1kg			1kg			1kg		
Sugar		1kg			1kg			1kg			1kg		
Veg. Oil		1l			1l			1l			1l		
NON FOOD													
Soap		1kg			1kg			1kg			1kg		
Paraffin		1l			1l			1l			1l		

- Items that are in short/declining supply and relatively expensive; items that are plentiful/in increasing supply and relatively cheap?

- The reasons for changes in availability and price as perceived by buyers and sellers?

PHYSICAL EXAMINATION OF CROPS

Area cultivated
Crop conditions
Plant density
Cropping pattern
Cob numbers and size per plant
Plant damage from disease
Pests
Hail storms
(...)

DAILY WRAP UP

Agricultural context: (Major changes in cropping patterns, extension support, environmental conditions, etc.)

Weather condition summary:

Agricultural inputs supply (seeds and fertilizers)
Existing system and efficiency:

Area harvested: (based on your best estimates)

Crop	Area Harvested	
	04/05	05/06
Maize		
Sorghum		
Wheat		
Beans		
Peas		
Barley		
Sun Flower		
Other.....		

Rationale:

Expected yield

Crop	Yield	
	04/05	05/06
Maize		
Sorghum		
Wheat		
Beans		
Peas		
Barley		
Sun Flower		
Other.....		

Rationale:

Prices and Markets:

Livestock production

General comments and expected changes

ANNEX 4 – Area and yield of cereal crops in 2005/06 compared to 2004/05 by districts

Lesotho: Area and yield of cereal crops in 2005/06 compared to 2004/05 by districts

District	maize						sorghum						wheat					
	area ha		yield t/ha		prod tonnes		area ha		yield t/ha		prod tonnes		area ha		yield t/ha		prod tonnes	
	2004/05 BOS	2005/06 BOS	2004/05	2005/06	2004/05	2005/06	2004/05 BOS	2005/06 BOS	2004/05	2005/06	2004/05	2005/06	2004/05 BOS	2005/06 BOS	2004/05	2005/06	2004/05	2005/06
Butha-Buthe	4776	5311	0.57	1.3	4270.6	6904	1018	1162	0.47	0.7	668.6	813.40	172	256	0.7	0.7	120.4	179
Leribe	20840	21908	0.82	1.1	21487.8	24099	2878	3149	0.52	0.7	2141.4	2204.30	140	231.5	0.8	0.8	112	185
Berea	18729	19906	0.35	0.8	8385.9	15925	5029	4535	0.4	0.65	2313.8	2947.75	0	96.5	0	0	0	0
Maseru	18230	18886	0.85	0.9	19445.6	16997	4479	4172	0.53	0.6	2702.5	2503.20	2221	2696	0.7	0.7	1554.7	1887
Mafeteng	19390	20340	0.4	0.6	8910.8	12204	5903	5857	0.55	0.65	3459.5	3807.05	253	126.5	0.4	0.3	101.2	38
Mohale's Hoek	12509	12568	0.35	0.5	5965.1	6284	5916	5725	0.4	0.5	2524.8	2862.50	833	1066.5	0.65	0.35	541.5	373
Quthing	7215	6962	0.3	0.5	2940.7	3481	2911	2961	0.3	0.4	992.4	1184.40	926	1866	0.6	0.3	556.2	560
Qacha's Nek	2812	1708	0.41	0.2	1838.9	342	1120	708	0.35	0.2	744	141.60	1201	1027	1.3	0.5	1561.3	514
Mokhotlong	4901	6500	0.65	0.4	4591.7	2600	37	140	0.3	0.2	11.1	28.00	3429	3584	1.3	0.5	4457.7	1792
Thaba-Tseka	10609	10632	0.7	0.5	14292	5316	1352	1500	0.55	0.4	884	600.00	2619	2962	1	0.7	1334	2073
LESOTHO	120012	124723			92129.1	94152	30643	30010			16442	17092.2	11794	13913			10339	7602

Source: Bureau of Statistics and Assessment estimates

Lesotho: Area and yield of cereal crops in 2005/06 compared to 2004/05 by districts

District	maize						Sorghum						wheat					
	area ha		yield t/ha		prod tonnes		area ha		yield t/ha		prod tonnes		area ha		yield t/ha		prod tonnes	
	2004/05	2005/06	2004/05	2005/06	2004/05	2005/06	2004/05	2005/06	2004/05	2005/06	2004/05	2005/06	2004/05	2005/06	2004/05	2005/06	2004/05	2005/06
Butha-Buthe	7492.3	7118	0.57	1.3	4270.6	9253	1422.5	1351	0.47	0.7	668.6	945.96	172	163	0.7	0.7	120.4	114
Leribe	26204.6	23584	0.82	1.1	21487.8	25943	4118	3706	0.52	0.7	2141.4	2594.34	140	126	0.8	0.8	112	101
Berea	23959.7	20366	0.35	0.8	8385.9	16293	5784.5	4917	0.4	0.65	2313.8	3195.94	0	0	0	0	0	0
Maseru	22877.2	18302	0.85	0.9	19445.6	16472	5099	4334	0.53	0.6	2702.5	2600.49	2221	2110	0.7	0.7	1554.7	1477
Mafeteng	22276.9	21163	0.4	0.6	8910.8	12698	6290	6605	0.55	0.65	3459.5	4292.93	253	240	0.4	0.3	101.2	72
Mohale's Hoek	17043.1	7118	0.35	0.5	5965.1	3559	6312.1	3737	0.4	0.5	2524.8	1868.39	833	791	0.65	0.35	541.5	277
Quthing	9802.4	9312	0.3	0.5	2940.7	4656	3308	3143	0.3	0.4	992.4	1257.04	927	881	0.6	0.3	556.2	264
Qacha's Nek	4485	4597	0.41	0.2	1838.9	919	2125.6	2179	0.35	0.2	744	435.75	1201	1231	1.3	0.5	1561.3	616
Mokhotlong	7064.2	7241	0.65	0.4	4591.7	2896	37	38	0.3	0.2	11.1	7.59	3429	3515	1.3	0.5	4457.7	1757
Thaba-Tseka	20417.1	20621	0.7	0.5	14292	10311	1607.3	1623	0.55	0.4	884	649.35	1334	1367	1	0.7	1334	957
LESOTHO	161559.5	139422			92129.1	102999	36104	31632			16442	17847.8	10510	10425			10339	5635

Source: CFSAM and Assessment estimates

Annex 5 - ANNUAL CEREAL BALANCE SHEET FOR THE 2006/07 MARKETING – DMA-NEWU

Annual Balance sheet as at 1st April 2006					
Figures in (000)					
	Maize	Wheat	Sorghum	Total	
<u>1. Domestic Availability</u>	108.690	46.463	17.800	172.953	
1.1 Opening stock (01/April/2006)	5.690	40.863	0	46.553	
Formal (Monitored)	5.690	40.863	0	46.553	
On farm (Unmonitored)	0	0	0	0	
1.2 Gross Harvest	103.000	5.600	17.800	126.400	
<u>2. Total Domestic Requirements</u>	276.4	105.820	32.600	414.820	
2.1 Domestic consumption Requirements	276.4	105.820	32.600	414.820	
2.2 Feed use, other uses & losses	0	0	0	0	
<u>3. Domestic Short fall/Surplus</u>	-167.71	-59.357	-14.800	-241.867	
<u>4. Total Planned Imports</u>	163.371	80.157	0	243.528	
4.1 Commercial Imports	141.702	80.157	0	221.859	
4.2 Food Aid - Agency	21.669	0	0	21.669	
4.3 Food Aid - Government	0	0	0	0	
<u>5. Imports Received</u>	10.046	1.362	0	11.408	
5.1 Commercial Imports Received	10.046	1.362	0	11.408	
5.2 Food Aid Received - Agency	0	0	0	0	
5.3 Food Aid- Government	0	0	0	0	
<u>6. Expected Imports</u>	153.325	78.795	0	232.12	
6.1 Commercial Imports Expected	131.656	78.795	0	210.451	
6.2 Food Aid - Agency	21.669	0	0	21.669	
6.3 Food Aid - Government	0	0	0	0	
<u>7. Uncovered Shortfall/import Gap</u>	-4.339	20.800	-14.800	1.661	
8. current Stock Level 30th April 2006	4.640	35.671	0	40.311	