

2016



Lesotho Government

Lesotho VAC

LESOTHO VULNERABILITY ASSESSMENT COMMITTEE

MARKET ASSESSMENT REPORT

The market assessment was conducted to determine the functionality of the food market systems for maize, beans and cooking oil in Lesotho. The findings demonstrate that markets in Lesotho are well-integrated and are functioning. The report also explores Lesotho's cereal availability for the 2016-17 season, which remains one of the key food security concerns for the upcoming marketing season especially in light of the soaring food prices in the country as well as across southern Africa.



World Food Programme

World Vision



Food and Agriculture Organization of the United Nations



Table of Contents

List of Figures	2
List of Tables	3
List of Maps	3
Acknowledgments	5
Key Findings	6
Executive Summary	7
Section 1: Introduction	10
1.2 The Economy	10
1.3 Agriculture Cropping Calendar	12
1.4 Food Availability	13
1.5 Food Security and Nutrition	15
1.6 Food Assistance	16
Section 2: Objectives, methodology and limitations	17
2.1 Objectives	17
2.2 Methodology	18
2.3 Limitations	20
3. Market Structure, Conduct and Import Requirements	20
4. Price Analysis	25
4.1 Price Volatility	25
4.2 Market price integration	30
5. Assessment of Traders and Markets	31
5.1 Traders' Characteristics	31
5.2 Flow and volume of traded commodities	33
5.3 Credit and Stock Strategy	35
5.4 Response capacity and constraints	37
6. Households' Access to Markets	39
7. Conclusions	41
8. References	42
9. Annexes	43
Annex 1: Terms of reference	43
Annex 2: Questionnaire	46
Annex 3 – Assessment Methodology	58

List of Figures

Figure 1: Annual Inflation Rate vs. Food CPI: Jan 2013 to Feb 2016 -----	12
Figure 2: Lesotho annual cropping calendar-----	12
Figure 3: 2005/2006 -2015/2016 LVAC estimates on the number of people in need of Humanitarian Assistance-----	16
Figure 4: -----	22
Figure 5: Price of white maize (retail) in South Africa compared to the FAO Food Price Index over time -----	26
Figure 6: Nominal national average monthly price of maize meal (Loti/12.5kg bag)-----	27
Figure 7: Maize meal grand seasonal national price index 2010-16 -----	27
Figure 8: Lesotho forecast of national average maize meal 2016 retail price (Loti/12.5kg) compared to 2015/16 price trend and five-year average prices -----	28
Figure 9: Comparing maize meal coefficient of variation for key district markets over time 2010-14 annual average with 2015-16 -----	29
Figure 10: National average of trader gender -----	32
Figure 11: Average number of days it takes to restock by district-----	35
Figure 12: Trader credit provided to customers in January 2016 as a per cent of their total sales in January 2016 -----	36
Figure 13: Trader Storage Structure -----	36
Figure 14: Per cent of traders by district reporting that they can meet demand increases of 100 per cent for maize meal, pulses and cooking oil -----	37
Figure 15: Timeframe to meet an increase in demand of 50 per cent with adequate volume per commodity-----	38
Figure 16: Price trend related to a 25 per cent increase in demand -----	38
Figure 17: Main reported trader constraints -----	39
Figure 18: Market Source Road Type -----	39

List of Tables

Table 1: GDP by sector (percentage of GDP at current prices)	11
Table 2: SADC 2015-16 cereal availability update – (RVAC, July 2015).....	13
Table 3: Nutritional Situation for children under the age of five years	15
Table 4: Summary of populations at risk of survival and livelihood protection deficits in the 2015/16 consumption year to June 2016.....	17
Table 5: Districts covered by the 10 teams in the market assessment.....	19
Table 6: Maize production (mt) by District in Lesotho since 2010.....	21
Table 7: Detailed description of maize meal market actors in Lesotho	23
Table 8: Detailed description of maize meal market actors in Lesotho	24
Table 9: Price correlation coefficients of key markets in 9 of the 10 districts covered by the market assessment	30
Table 10: Trader breakdown by type of trader	31
Table 11: Business ownership by trader gender	32
Table 12: Trader ownership nationality at national level (LVAC 2016 Market Assessment)	32
Table 13: Per cent of shop ownership by district in Lesotho	33
Table 14: Distribution of trader by years of experience:.....	33
Table 15: Average Trade per Week in Commodity by Trader Size	34
Table 16: Traders’ maize meal source reference market.....	34
Table 17: Average national restocking frequency (number of times) per month by trader type	35
Table 18: Average total storage capacity used by trader type	37
Table 19: Per cent of market source road type by District.....	40
Table 20: Furthest average walking distance.....	40
from the market back district (km)	40

List of Maps

Map 1: Agricultural Stress Index (ASI)	14
Map 2: Geo-locations of markets assessed.....	19

Acronyms

ASI	Agricultural Stress Index
BOS	Bureau of Statistics
CBT	Cash Based Transfer
CPI	Consumer Price Index
CRS	Catholic Relief Services
C&V	Cash and Vouchers
DA	District Administrator
DMA	Disaster Management Authority
FAO	United Nations Food and Agriculture Organization
FNCO	Food & Nutrition Coordinating Office
Ha	Hectares
IMF	International Monetary Fund
KG	Kilograms
KCal	Kilocalorie
Km	Kilometers
Lt	Litres
LDHS	Lesotho Demographic Household Survey
M	Meters
MT	Metric Ton
MTICM	Ministry of Trade and Industry, Cooperatives and Marketing
RBJ	Regional Bureau Johannesburg
SAGIS	South African Grain Information Service
USD	United States Dollars
VAT	Value Added Tax
WB	World Bank
WFP	United Nations World Food Programme
WVI	World Vision International
LVAC	Lesotho Vulnerability Assessment Committee

Acknowledgments

The Lesotho Vulnerability Assessment Committee (LVAC) would like to acknowledge the efforts of a number of organizations that made the success of the 2016 Market Assessment possible. We would like to acknowledge the organizational and technical support from the Disaster Management Authority (DMA) without which the coordinated effort of the assessment would not have been possible. Special thanks goes to The South African Development Community (SADC) which provided funding for the exercise; to DMA, The Ministry of Small Business Development, Co-operatives & Marketing, The Ministry of Agriculture and Food Security, Catholic Relief Services (CRS), Red Cross Lesotho, World Vision International (WVI), The United Nations Food and Agriculture Organization (FAO) and The United Nations World Food Programme (WFP) for providing enumerators and vehicles for the exercise. Thanks goes to WFP for providing the required android operated tablets for the assessment, and to the Technical Working Group (DMA, WVI, Ministry of Agriculture and Food Security, CRS, Red Cross Lesotho, FAO and WFP) for spending time to prepare, analyze and review the assessment tools and the data.

Many thanks and appreciation goes to LVAC members and the District Authorities for providing key market information which guided the selection of the key markets to be assessed. In particular thanks and appreciation also goes to Likeleli Phoolo (WFP – Lesotho) for writing Sections 1.0 and 1.2 of the report, to Jonathan Pound (FAO – HQ) and Borja Miguelez (FAO – Lesotho) for writing the agriculture Section 1.4, to Merlyn Chapfunga (WFP - Lesotho) for writing Section 1.5 on nutrition, to Daison Ngirazi (WFP – Lesotho) and Irfan Ghumman (WFP – Regional Bureau in Johannesburg – RBJ) for developing the maps used in the report, and to Jan Michiels (WFP – RBJ) for leading the assessment and the write-up of the report. Our sincere gratitude goes to the traders and key informants in markets across Lesotho who generously gave their time to provide the required information and without whom this report would not have been possible.

Key Findings

Southern Africa's 2015-16 regional harvest is expected to be well below the regional average. South Africa, the region's biggest producer of maize is reporting that it will have to import 3.8 million tonnes of maize in 2016-17. Numerous countries in the region have reported a state of drought emergency.

Lesotho is highly dependent on food imports, importing around 70 per cent of their food requirements annually. At around 1 tonne per hectare, agriculture production yields are low in Lesotho. Available arable land is also low at only 9 per cent (281,300 Ha) of the country's total land coverage. Since 2007, on average Lesotho has harvested an annual cereal production of 97,600 tonnes compared to the country's total annual cereal requirement of 360,000 tonnes.

The Government of Lesotho will release its official crop forecast figures in June 2016. All 10 districts are expected to be registering lower production levels, however, tentative figures place maize imports for 2016-17 at 150,000 tonnes, up from 110,000 tonnes in 2015-16.

The unprecedented El Niño phenomenon has affected southern African harvests through two consecutive seasons of drought, extensive dry spells, and late and erratic rains. Lesotho's food production has also been affected. Rough estimates place maize production in Lesotho for the 2015-16 harvest at 35,000 tonnes, down from 74,000 tonnes in 2014-15, a decrease of 47% from 2014-15. Wheat and sorghum production is expected to be around their 2014-15 levels of 3,720 tonnes for sorghum and 7,000 tonnes for wheat.

The LVAC Rapid Assessment conducted in January 2016 found the estimated total number of food insecure people in Lesotho to have increased to 534,502 people from 463,936 in July 2015, representing a 15.2 percent increase. The increase is attributed largely to the worsening drought and resulting bad harvest in the region which have also pushed up the price of key food commodities.

Lesotho generally experiences stable food prices, fluctuating around 1.5 per cent from its annual national average price. Due to the lower harvests in the region, prices in 2015 have however have been increasing across Southern Africa, including South Africa and Lesotho. In April the price of a 12.5kg bag of white maize meal was 58 per cent higher than its five year average for the same time of year. The increase in staple food prices is worrying since 57% of people in Lesotho live at or below the national poverty line of 1.25 USD per day.

Food markets in Lesotho are well established, functional and are generally performing well. The Government of Lesotho does not impose import duties on processed commodities such as maize meal and cooking oil. The food supply chain in the country is strong with numerous actors trading between markets ensuring markets are well-integrated and interconnected hereby also ensuring food prices across different markets are correlating at above 0.8 out of 1. Most traders can restock in 1 to 2 days and they have ample storage capacity. Markets are by and large also easily accessible with over 60 per cent of the roads tarmacked or in good gravel condition.

Falling commodity prices on international markets has affected economic growth in southern Africa, a region highly dependent on the export of natural resources such as coal, oil, gold, copper, platinum and diamonds. Due to the fall in commodity prices the region is experiencing serious national currency devaluations including the South African Rand to which the Lesotho Loti is pegged.

Executive Summary

In early 2016, DMA requested LVAC to conduct a market assessment in Lesotho to determine the functionality of food market systems (for maize, pulses and cooking oil) in the country. The findings of the assessment are intended to inform design and implementation of humanitarian assistance programmes in the country in 2016.

The market assessment covered the country's 10 districts, all of which had been identified by a prior LVAC food security assessment to be highly food insecure for the 2016/17 consumption season. The market assessment identified whether local markets have the ability to effectively respond to increased consumer demand. The report also examined adequate food supply levels in the country and assessed the stability of food prices in both the short and long term.

The assessment employed primary and secondary data. Structured trader, agriculture inputs and key informant questionnaires were used to collect the primary data while key stakeholder discussions were undertaken to obtain information from market actors. A total of 110 markets were assessed, interviewing 294 traders, using a structured trader questionnaire and of which 15 traders were wholesalers, 90 were medium vendors, and 189 were small traders/retailers. National millers were also interviewed as key informants. An additional 49 traders were interviewed using an agriculture inputs questionnaire.

Food security under increasing pressure

Southern Africa is experiencing an unprecedented El Niño phenomenon which manifested itself with two consecutive years of drought and erratic rains. Last year (2015) was the hottest and driest year on record in over a century for South Africa; seven out of South Africa's nine provinces have reported a situation of drought related disaster. Moreover, Lesotho, Malawi, Swaziland and Zimbabwe have recently (December 2015 – February 2016) declared a state of drought emergency while Mozambique has issued a state of red alert related to the worsening drought. SADC is now considering announcing a regional state of drought emergency.

The unfavorable climatic conditions have triggered a second year of heightened food insecurity levels in the region. Already southern Africa's 2014-15 harvest was below average, reporting a 7.9 million tonnes cereal deficit. The 2015-16 harvest is expected to be worse, with South Africa, the world's tenth largest (in terms of volume) producer of maize and southern Africa's largest maize producer, forecasted to import 3.8 million tonnes¹ of maize in 2016-17. Multiple countries in the region depend on South Africa for their food security. Grain SA (an association of South African grain farmers) estimates that South Africa will need to supply 810,000 tonnes to countries in the Southern African Customs Union (SACU – Botswana, Lesotho, Namibia and Swaziland), to support their food security needs; a requirement which South Africa seems to be able to accommodate for through its planned 2016-17 maize imports.

In Lesotho a rapid food security assessment (LVAC Rapid Assessment) conducted in January 2016 found that the estimated total number of food insecure people in Lesotho had increased by 15.2 per cent to 534,502 people, from 463,936 in July 2015.

¹ Information from South Africa's National Crop Estimate Committee (March 2016)

As a result of falling commodity prices, the Southern African region is also experiencing serious national currency devaluations. Against the US Dollar, between February 2015 and February 2016, Zambia's Kwacha fell by as much as 61 per cent; Mozambique's Metical by up to 50 per cent; Angola's Kwanza by up to 50 per cent; and South Africa's Rand fell by as much as 25 per cent². The devaluation of the South African Rand is impacting other currencies in the region, especially those which are pegged to it such as the Lesotho Loti, the Namibian Dollar, and Swaziland's Lilangeni as well as affecting Zimbabwe's economy which uses the SA Rand as one of its official currencies.

The devaluations are having an impact on consumer purchasing power and it also reduces the financial support remittances provide. According to a recent World Bank report³, Lesotho benefits from USD 380 million in remittances (approximately 16 per cent of its annual GDP) annually and a vast majority (98 per cent) of the remittances received in Lesotho are from other African countries⁴, where currency devaluations are taking place.

A net food-importing country

Since 2007 Lesotho has been averaging an annual cereal production of 97,600 tonnes, comprising around 76,000 tonnes of maize, 9,600 tonnes of sorghum and 12,000 tonnes of wheat. However, even in good harvest years, Lesotho is only able to meet roughly 30 per cent (110,000 tonnes) of its annual cereal requirements (approximately 360,000 tonnes). Lesotho is therefore highly dependent on food imports to meet its food needs. On average the country imports around 70 per cent of its food need requirements per year, which a vast majority, if not all, are imported from neighbouring South Africa.

The Government of Lesotho is to release its official crop forecast figures later in June 2016, all 10 districts are expected to register lower production levels than average. Unofficial data, and a rough estimate, places maize production in the country for the 2015-16 harvest at 35,000 tonnes, down from 74,000 tonnes in 2014-15. This represents a decrease of 47 per cent from 2014-15 harvest levels. Wheat and sorghum production are expected to be similar to their 2014-15 levels of 3,720 tonnes for sorghum and 7,000 tonnes for wheat.

Lesotho maize imports are roughly expected to be around 150,000 tonnes for the 2016-17 season, up from 110,000 tonnes in 2015-16, an increase of 36.4 per cent. Total cereal imports for Lesotho to meet their 2016-17 domestic requirements (stocks for human consumption, animal feed and losses/waste) are estimated at 315,000 tonnes. Representing an increase of around 40,000 tonnes (11 per cent) compared to 2014-15 and an increase of around 53,000 tonnes (20 per cent) compared to Lesotho's annual average import requirements.

Stability of food prices

Due to Lesotho's high dependence on food imports from South Africa, food prices tend to follow South African food price trends, which generally tend to be stable. However white maize prices have recently been increasing in South Africa especially since November 2015. Maize price trend analysis displayed in **Section 4** shows that Lesotho tends to have a very stable maize meal market price which only varies

² Data from trading economics: <http://www.tradingeconomics.com/south-africa/currency>

³ MPI, (2016a), Migration and Remittances Fact Book 2016

<http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTDECPROSPECTS/0,,contentMDK:21352016~pagePK:64165401~piPK:64165026~theSitePK:476883,00.html>

⁴ MPI (2016b), Migration Policy Institute

marginally (by less than 1.5 per cent) from the annual average price. In other words, seasonality does not heavily affect Lesotho's maize meal price.

However, due to the recent drought, the retail price (1kg) of white maize has doubled in South Africa hereby also affecting prices in Lesotho. The price of a 12.5kg bag of white maize meal in Lesotho in April 2016 was 58 per cent higher than its five year average level for the time of year; a troubling fact for a country where 57.1 per cent of its population live at or below the national poverty line (1.25 USD per day). Even though Southern Africa's harvest in May is expected to dampen prices slightly, the forecast is for further and more severe food price increases from October 2016 till April 2017; southern Africa's lean season period, highlighting the need for continuous monitoring.

Market capacity and functionality

Lesotho's high food import volumes means that food availability in the country depends heavily on traders' capacity and ability to stock and sell food. Markets' functionality such as accessibility, road quality network systems as well as traders' storage and trade volumes therefore directly affect food security levels in the country.

Food markets in Lesotho are well established and functional. The Government of Lesotho does not impose import duties on processed commodities such as maize meal and cooking oil. The food supply chain in the country is strong with numerous actors trading between different types of markets (primary, secondary and tertiary) enabling markets to be well-integrated and interconnected. Food prices across different markets are correlating strongly at above 0.8, showing strong signs of market integration. Most traders can restock in 1 to 2 days from their source markets and they have ample storage capacity. Markets are by-and-large also easily accessible with over 60 per cent of roads to the assessed markets being tarmacked or in good gravel condition. There is ample trader storage capacity as on average only 23 per cent of a trader's storage capacity was reported being used in February 2016, the peak of the lean season when trade volumes are meant to be at their highest.

Traders' key constraints and their ability to respond to increased consumer demand

Top constraints preventing traders from substantially increasing trade volumes were lack of customer liquidity and limited trader access to credit, representing 40.5 per cent of responses. Other minor constraints were related to infrastructural issues such as bad roads and lack of transport (11.6 per cent of interviewed traders) and shortage of supply (5.4 per cent of traders) in addition to high levels of competition between traders (affecting 12.2 per cent of interviewed traders) and high levels of insecurity as 7.8 per cent of traders mentioned theft a serious problem.

By-and-large traders across Lesotho mentioned that they have the capacity to meet increases in demand by 100 per cent. Specifically, 85 per cent of traders across Lesotho claimed that they would be able to double their maize meal sales within less than two weeks. For dried beans this figure was at 87.4 per cent of traders, and for cooking oil 89.1 per cent of traders mentioned to be able to meet a 100 per cent increase in demand.

Section 1: Introduction

Lesotho is a small mountainous landlocked nation, completely surrounded by South Africa. It has a land area of about 30,355 square kilometres of which a negligible part is covered with water. Of its land area, less than 9 per cent is arable.

There are approximately 2 million people living in the country, out of which 75 per cent live in rural areas. The proportion of people who live below the poverty line was estimated at 56.6 per cent in the 2002/03 household budget survey, a figure which increased to 57.1 per cent in 2014 (World Bank – WB).

Unemployment is high, estimated at 25 per cent. Most people in rural areas rely on the agriculture sector for employment, which is prone to natural hazards, mainly drought, flash floods and pests.

The 2015/16 agricultural year has experienced one of the worst El Niño droughts in 35 years, resulting in poor performance of the agriculture sector and therefore poor agricultural prospects. The contribution of the agriculture sector to GDP is estimated at 8.6 per cent. This situation is worsened by a high prevalence of HIV/AIDS rates estimated at 23 per cent of the population, which is the second highest rate in the world after Swaziland. A high proportion of those affected are young people.

1.2 The Economy

Lesotho's economy relies on diamond mining, exports of water to South Africa as well as remittances from the South African Customs Union (SACU). Clothing exports contribute 40 per cent of total national exports, while diamond exports contribute 22 per cent. Other exports include: road vehicles, wool and tobacco. The increased production in diamond mines and road construction projects including Lesotho Highland Water Project Phase II have contributed to a fairly stable economy. Nevertheless, economic growth in 2014 was estimated at 4.3 per cent, representing a decline from 5.7 per cent in 2013. **Table 1** below gives a breakdown of GDP contributions by sector of the economy between 2009 and 2013.

Lesotho Fact File

Population:	2.109 million (2014, WB), 75 per cent live in rural areas
Climate:	Continental climate, rainy season (summer) October – April. Temperatures range between 30° C in the summer to as low as -7° C in the winter.
Political administration:	The country is divided into 10 districts: Butha-Buthe; Leribe; Berea; Maseru; Mafeteng; Mohale's Hoek; Quthing; Qacha's Nek; Mokhotlong; Thaba Tseka
Currency:	Loti (pegged to the SA Rand)
GDP Total:	US \$2.181 billion (2014, WB)
GDP Per Capita:	US \$1,034 (2014, WB) – Lower Middle Income Country
HDI:	0.497 – 161 (low, HDR 2014)
Gini Index:	0.54 (2015, WB)
Poverty Headcount:	57.1per cent (at national poverty lines – 2014, WB)



Table 1: GDP by sector (percentage of GDP at current prices)

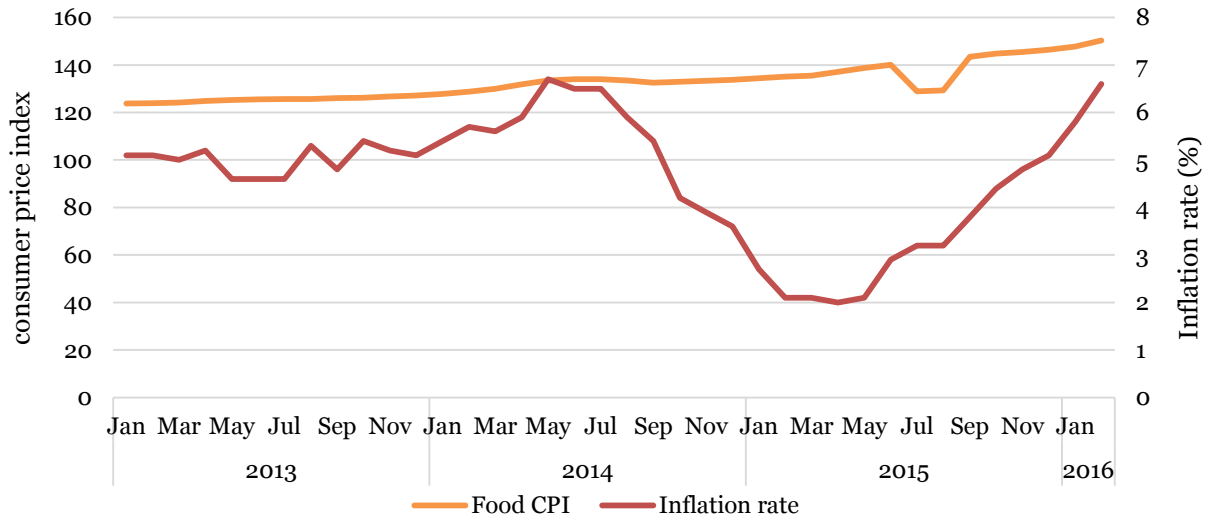
Sector of the Economy	2009	2013
Agriculture, forestry, fishing & hunting	7.7	8.6
of which fishing
Mining and quarrying	6.9	4.9
of which oil
Manufacturing	16.0	10.8
Electricity, gas and water	4.2	4.5
Construction	5.4	9.6
Wholesale & retail trade; repair of vehicles household goods; Restaurants and hotels	8.9	11.2
- of which hotels and restaurants	1.2	1.2
- Transport, storage and communication	6.4	7.0
- Finance, real estate and business services	18.2	18.3
- Public administration and defence	13.1	10.7
- Other services	13.2	14.4
Gross domestic product at basic prices / factor cost	100.0	100.0

Source: Lesotho Economic Outlook, 2014

The recent increase in textile industry and commerce have created jobs for many Basotho. Yet, Lesotho continues to face challenges that include low diversification and over-dependence on foreign capital inflows, making the economy vulnerable to external shocks. There are some uncertainties surrounding the renewal of the United States' African Growth and Opportunity Act (AGOA) which constrains the country's competitiveness on international markets. This has resulted in lower production levels for the textiles and clothing factories in 2015 and 2016. The labour market has also faced challenges in 2015. Basotho migrant workers in South African mines have declined by 6 per cent in the third quarter of 2015 and 8 per cent in the fourth quarter, while employment by the government also declined by 0.5 per cent.

According to the Bureau of Statistics (BoS), the period between February and May 2015 recorded the lowest annual inflation since 2005, which remained lower than 3 per cent. Inflation though has since increased to 5.1 per cent in December 2015 and further to 6.6 per cent in February 2016 (**Figure 1**). This can be largely attributed to the rise in food prices as food is weighted at 40 per cent in the country's consumer price index (CPI). The Food CPI remained higher than the overall CPI at a 10 per cent average. The cost of food increased by about 12 per cent in February 2016 compared to the same month last year. Increases in the price of maize were attributed to price increases in South Africa where Lesotho buys the bulk of its food requirements. Maize prices have been impacted negatively by the two consecutive years of drought.

Figure 1: Annual Inflation Rate vs. Food CPI: Jan 2013 to Feb 2016



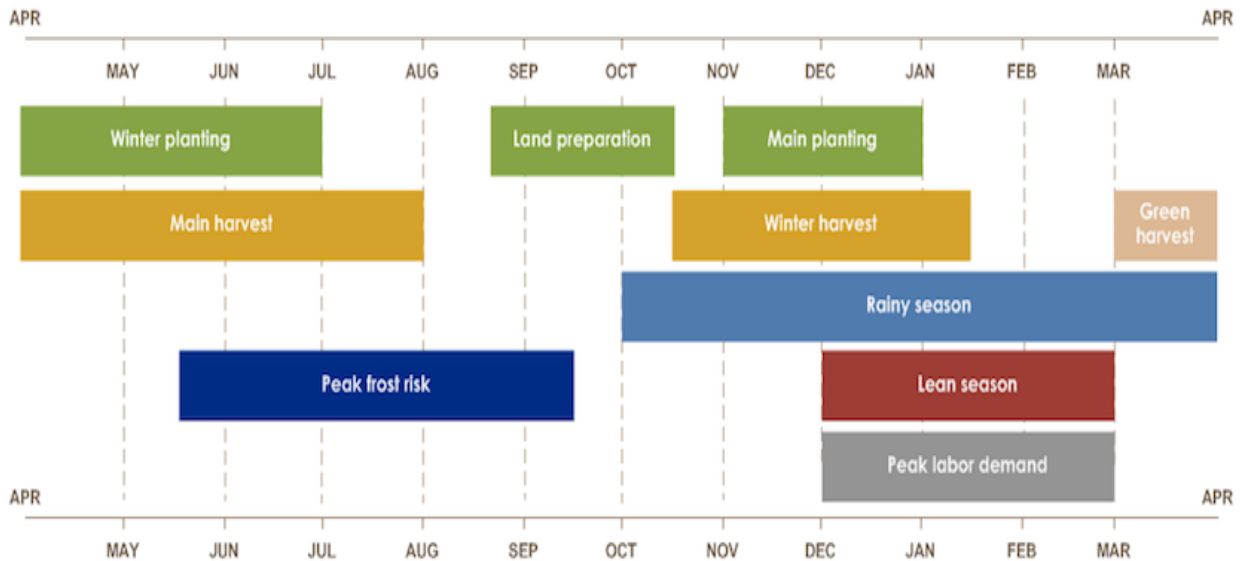
Source: BoS, 2016

1.3 Agriculture Cropping Calendar

Agriculture in Lesotho is predominantly traditional, characterized by rain-fed cereal production and extensive animal grazing. The primary crops grown in Lesotho are maize, wheat, sorghum, barely and beans while the contribution of the livestock subsector is roughly double that of the arable subsector.

Figure 2 below shows Lesotho’s seasonal calendar. Maize, pulses and sorghum are usually planted in the main planting period November – January and are harvested between April – July. Wheat is a winter crop following winter crop planting and harvesting patterns as per Figure 2.

Figure 2: Lesotho annual cropping calendar



Source: FEWS NET <http://www.fews.net/southern-africa/lesotho/seasonal-calendar/december-2013>

1.4 Food Availability

Lesotho, like the rest of Southern Africa is currently experiencing the tail-end of an extremely pronounced El Niño weather system which has brought delayed rains and extensive droughts. The worst El Niño weather event to affect southern Africa in 35 years has meant that the region has been affected by two consecutive years of droughts for the 2014-15 and 2015-16 agricultural seasons.

The two consecutive drought years in the region have led to significant regional cereal deficits. The regional cereal deficit for the 2015-16 marketing season was of 7.9 million tonnes, as shown in **Table 2** below. This deficit is composed of shortfalls from several cereals: 2.64 million tonnes deficit of maize, 3.23 million MT deficit of wheat, 0.72 million tonnes deficit of rice and 1.31 million tonnes deficit of sorghum/millet. Even though, being still too early in 2016 to precisely validate forecasts, the 2016 fifth national crop estimate⁵ is predicting the 2015-16 maize harvest to be South Africa's worst harvest in seven years. South Africa is expected to produce 7.16 million tonnes of which 3.1 million tonnes white maize and 4.06 million tonnes of yellow maize. Forecasts are also predicting that South Africa will have to import around 3.8 million tonnes of maize (1.1 million tonnes of white maize and 2.7 million tonnes of yellow maize) in the 2016-17 marketing season compared to 1.96 million tonnes for the 2015-16 marketing season when South Africa imported maize for the first time in 7 years.

Table 2: SADC 2015-16 cereal availability update – (RVAC, July 2015)

Country	2014-15 maize harvest ('000 MT)	2014-15 total cereal harvest ('000 MT)	2015-16 domestic shortfall/surplus ('000 MT) all cereals
Angola	1,667	1,789	-2,115
Botswana	15	22	-472
Lesotho	74	85	-222
Malawi	2,877	3,067	-671
DRC	1,160	1,533	-1,278
Mozambique	2,330	2,510	-1,175
Namibia	163	68	-234
RSA	10,514	12,444	-1,643
Swaziland	82	82	-138
Tanzania	5,735	8,486	928
Zambia	2,618	2,886	759
Zimbabwe	742	867	-1,642
SADC	27,977	33,839	-7,903

Notes:

1. SA domestic shortfall is mainly from wheat (-1,558,000 Mt) and rice (-454,000 Mt).
2. SA maize surplus is 314,000Mt and small grains 55,000Mt
3. Tanzania maize surplus 808,000Mt, rice 850,000Mt, wheat deficit -34,000Mt and small grain deficit -697,000Mt

Source: FEWS NET

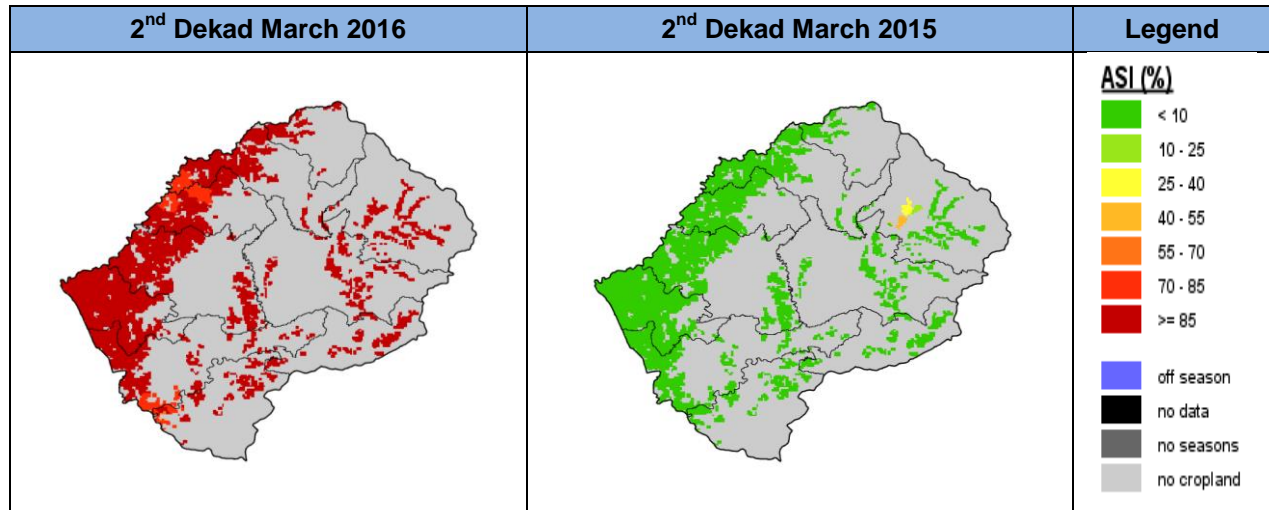
The nine per cent of available arable land in Lesotho generally produces 30 per cent of the country's annual food need requirements. Since 2007 Lesotho has imported on average around 70 per cent of its annual food requirements. Lesotho's 2014-15 cereal harvest however was at 74,000 tonnes of maize, 7,000 tonnes of wheat and 3,720 tonnes of sorghum, representing a national cereal shortfall of 275,280 tonnes (76.5 per cent).

⁵ South Africa's Department of Agriculture, Forestry and Fisheries 2016 Crop Forecast
<http://www.daff.gov.za/daffweb3/home/crop-estimates>

Harvesting of the 2015-16 cereal crops in Lesotho is expected to commence in May 2016. National cereal production is forecasted to decline for a second consecutive year to well below-average levels. This season’s unfavourable outlook mainly reflects severely suppressed seasonal rainfall and higher-than-normal temperatures since the start of the cropping season in October 2015, associated with the prevailing, but currently dissipating, El Niño.

A delayed start of seasonal rains resulted in a lack of adequate soil moisture for normal planting operations, causing a reduction in plantings, with reports indicating that up to 70 per cent of communities⁶ did not plant. Rains thereafter were below average and while heavier rains were recorded in early 2016, they arrived too late for replanted crops to reach full maturity. In two of the largest cereal producing districts, Leribe and Maseru, estimated cumulative rainfall (between October 2015 and March 2016) was about 40 and 30 per cent below average, respectively. Moreover, the erratic temporal distribution of rainfall impeded normal crop development and the higher-than-average temperatures diminished the benefits of increased precipitation at the start of 2016. As a result, remote sensing data indicates drought-stressed vegetation conditions in most cropped areas (**Map 1**), confirming retarded crop development. Maize yields in 2016 are therefore anticipated to decline to levels below or comparable with those recorded in the drought-affected 2011/12 agricultural season, where the national average maize yield was approximately 0.5 tonnes per hectare. With both yields and the planted area expected to decrease in 2016, crop production is forecast at a well below-average level.

Map 1: Agricultural Stress Index (ASI)⁷



Source: FAO, 2016

Assuming a sharp reduction in maize output for 2016, which is expected to drop to 35,000 tonnes from an average 76,000 tonnes, Lesotho’s maize import requirement is forecast at around 150,000 tonnes in

6 El Niño - related Drought - Office of the Resident Coordinator Situation Update No. 02: <http://reliefweb.int/sites/reliefweb.int/files/resources/20160220per cent20Sitper cent20updateper cent20per cent20Lesotho.pdf>

7 The Agricultural Drought Index indicates the percentage of cropped area affected by drought. For more information please visit here.

the 2016/17 marketing year (April/March)⁸, up from 110,000 tonnes for 2015-16. Although regional export availabilities are forecast to be tighter this year, with South Africa expected to import around 3.8 million tonnes of maize, exports from South Africa (Lesotho's main trading partner and source of grains) are anticipated to be adequate to satisfy Lesotho's needs. Food access however, is expected to be severely constrained, particularly for low-income households, due to the record high South African maize prices that have caused imported inflationary pressure, with maize meal prices in Lesotho above their year-earlier values. The depreciation of the South Africa Rand, which the Lesotho Loti is pegged to, has also added to the inflationary pressure.

1.5 Food Security and Nutrition

Lesotho is confronted with a number of development challenges which include chronic poverty, food insecurity and high rates of malnutrition (33 per cent) and HIV prevalence (23 per cent). Household food security is undermined by wide-spread chronic poverty and socio-economic inequality. Subsistence agriculture remains the main livelihood for most Basotho, but this livelihood is severely undermined by increasingly erratic weather patterns and land degradation. The projected decline in agricultural production coupled with the increase of food prices as a result of the severe El Niño weather event is likely to adversely affect Basotho households' food security further in 2016.

Chronic malnutrition remains high in Lesotho and among the highest in the southern African countries (**Table 3**). Most micronutrient requirements remain unmet and according to the 2014 Lesotho Demographic Household Survey (LDHS), only 11 per cent of children under the age of five years received a minimum adequate diet. 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 per cent of the rural diet. From **Table 3** it is clear that Anaemia deficiency and stunting are serious issues affecting under 5 year olds across districts.

Table 3: Nutritional Situation for children under the age of five years

Districts	Stunting (%)	Wasting (%)	Anaemia deficiency (%)
MOKHOTLONG	47.7	3.6	59.2
BUTHA-BUTHE	40.3	1.8	58.5
THABA-TSEKA	40	4.1	56.1
MOHALES'HOEK	38.1	3.3	55.7
QUTHING	34.1	1.2	53.5
QACHAS'NEK	32.5	4	48.5
LERIBE	31.3	3.3	47.4
MASERU	29.9	1.8	47.3
BEREA	27.4	3.5	44.5
MAFETENG	25.9	2.6	40.9
NATIONAL	33	2.8	51

Source: LDHS 2014

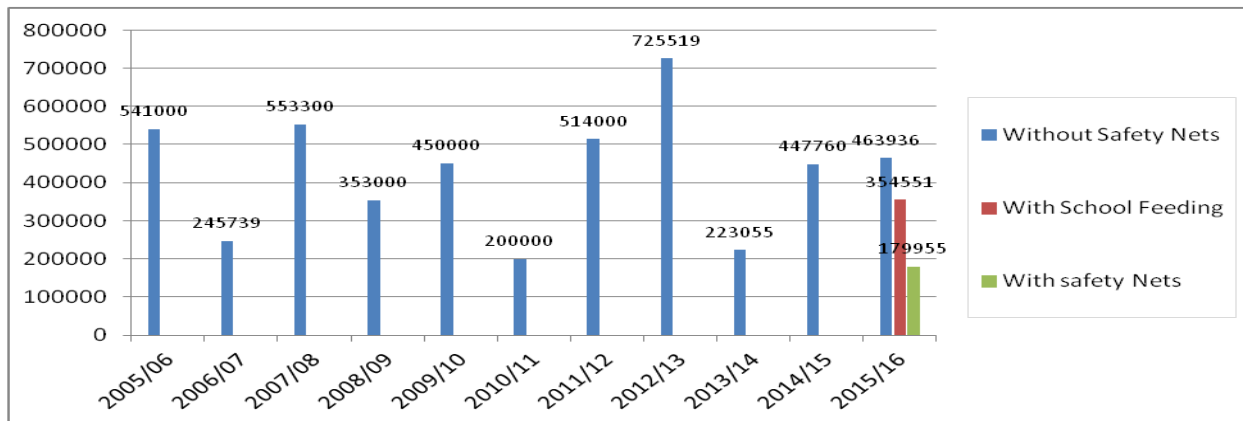
LVAC vulnerability studies conducted in 2012, 2013 and 2014 reported high numbers of people affected by food insecurity of which most of them consume less than the daily minimum requirement of calories due to generalized poverty, insufficient incomes as well as food insecurity itself. At the same time,

⁸ This is an estimate and precise figures will be released by the Government of Lesotho by May 2016.

Basotho⁹ children’s diets are based on a monotonous high carbohydrate diet complemented with some green leafy vegetables and insufficient animal protein. Therefore, inadequate dietary intake during complementary feeding period which is from 6 months accounts for sub-optimal micronutrient intake.

In rural Lesotho, food security conditions are linked to agriculture seasonality patterns. In the winter months (May to July) the supply of maize (the main crop) is at its maximum while in the summer months (November to January) own production stocks tend to be depleted forcing households to depend on the market for supply. This is why the summer months are sometimes called the ‘hungry months’, although other foods like fruits and vegetables actually are more abundant in summer than in winter. As can be seen in **Figure 3** the number of vulnerable people in Lesotho varies from 200,000 in 2010/11, a particularly good harvest year, to a high 725,519 in 2012/13. Generally, the most affected zones are the southern lowlands, the mountains and the country’s peri-urban areas.

Figure 3: 2005/2006 -2015/2016 LVAC estimates on the number of people in need of Humanitarian Assistance



Source: LVAC 2015

Lesotho’s food price increases are expected to have a disproportionate negative effect on the purchasing power of the poorest households. A recent study by FAO found that every percentage increase in the price of cereals (maize meal) should be matched by a 0.4 per cent increase in income in order to maintain the average Lesotho household’s utility unchanged (FAO, 2016). This study emphasizes the important implications that food price inflation is having on poor and vulnerable households’ food security.

1.6 Food Assistance

High food prices are undermining the purchasing power of poor households in the country. The recent rapid assessment conducted by LVAC in January 2016, identified 534,502 people with food insecurity (**Table 4**) up to June 2016. This is an increase from 447,000 people who were reported in July 2015. The increase is the result of El Niño induced drought which resulted in poor performance of the agricultural sector and in-turn strained most households’ livelihood opportunities. The country spends about 9.6 per cent of GDP on social protection programmes that include old age pension, child grants, public

⁹ D. Wiesmann et al. (2010), ‘A study of dietary patterns, energy intakes and micronutrient adequacy among children under 5 and their caretakers in Thaba-Tseka district, Lesotho to inform food and nutrition security programming’

assistance, OVC bursary, school feeding, nutrition support, agricultural inputs, national fertiliser and input subsidy, tertiary bursary scheme, integrated watershed and public works.

Table 4: Summary of populations at risk of survival and livelihood protection deficits in the 2015/16 consumption year to June 2016

District	SURVIVAL DEFICIT				TOTAL DEFICIT				
	Aggregate		V.Poor	Poor	Aggregate		V.Poor	Poor	Middle
	Population at risk	%popn in need	Population at risk	Population at risk	Population at risk	%popn in need	Population at risk	Population at risk	Population at risk
Butha-Buthe	8,710	11%	8,710	-	9,419	11%	9,082	337	-
Leribe	16,655	7%	14,732	1,923	21,038	8%	14,745	6,293	-
Berea	7,978	5%	7,978	-	9,697	6%	7,987	1,710	-
Maseru	50,587	23%	46,013	4,573	150,228	68%	71,154	79,074	-
Mafeteng	61,841	42%	24,569	37,271	94,831	64%	32,273	62,558	-
Mohale's Hoek	32,597	21%	29,700	2,896	101,900	67%	46,347	55,553	-
Quthing	12,621	11%	12,621	-	21,181	19%	16,797	4,384	-
Qacha's Nek	20,350	38%	6,977	13,373	24,978	47%	7,884	16,804	289
Mokhotlong	26,972	29%	9,694	17,279	40,394	43%	12,406	27,988	-
Thaba-Tseka	36,862	30%	16,063	20,799	60,835	50%	21,383	39,452	-
-	-	-	-	-	-	-	-	-	-
TOTALS	275,171	20%	177,057	98,114	534,502	38%	240,060	294,153	289

Source: LVAC Rapid Drought Impact Assessment Report 2016

Section 2: Objectives, methodology and limitations

2.1 Objectives

LVAC conducted the market assessment to determine the functionality of food market systems (for maize, pulses and cooking oil) in Lesotho and also in-order to inform the design and implementation of humanitarian assistance programmes in 2016-17. The market assessment was undertaken to analyze Lesotho's food market environment, structure and network. The assessment sheds light on financial and physical infrastructure, trader typology, trader limitations and constraints to trade as well as covering market functionality throughout different seasons in a year. Specific objectives of the assessment include:

Market structure	Identify the key actors and institutions as well as assessing the supply chain for cereals (maize and maize meal), pulses (sugar beans) and vegetable oil
Availability of food items	Analyse current and projected availability of cereals, pulses and cooking oil in local markets across Lesotho
Market integration	Establish how well the source and supply markets are linked
Market patterns	Analyse volumes stored and traded, price levels and trends, price setting behaviour, competition and seasonality
Capacity to meet consumer demand	Analyse the market's potential to respond to current and transfer-induced increases in consumer demand, e.g. through storage facilities, stocking levels, stock replenishment lead-time, etc.

Use of markets	<p>Analyse physical and economic access of food insecure populations in the country to local markets, how they (the markets) respond to price variations of food and non-food commodities, distance of vulnerable populations from markets and their road access to their key markets, etc.</p> <p>Analyse the market’s potential or capacity to respond to current and transfer-induced increases in consumer demand, e.g. through assessing the number of traders by operational capacity, storage facilities, stocking levels, stock replenishment lead-time;</p>
Overall market environment	<p>Analyse the role and implication of government policies and regulations, road and transport infrastructure and the socio-political situation on trade patterns and volumes</p>
Provide recommendations on:	<ul style="list-style-type: none"> ▪ The most appropriate assistance modality for each of the 10 districts covered¹⁰ ▪ The conceivable caseload scale for either cash/ vouchers or in-kind interventions ▪ How to address the identified bottlenecks for traders to meet increased demand and strengthen respective supply chains.

2.2 Methodology

The market assessment covered all of the country’s 10 districts, all of which had been identified by a prior LVAC food security assessment to be highly food insecure for the 2016/17 consumption season. The assessment employed both secondary and primary data sources to meet the stated objectives (see **Section 2.1**) and to identify suitable markets for market based response options. Primary data was collected using structured trader, agriculture inputs and market key informant questionnaires. See **Annex 3** for more detailed information on the assessment methodology.

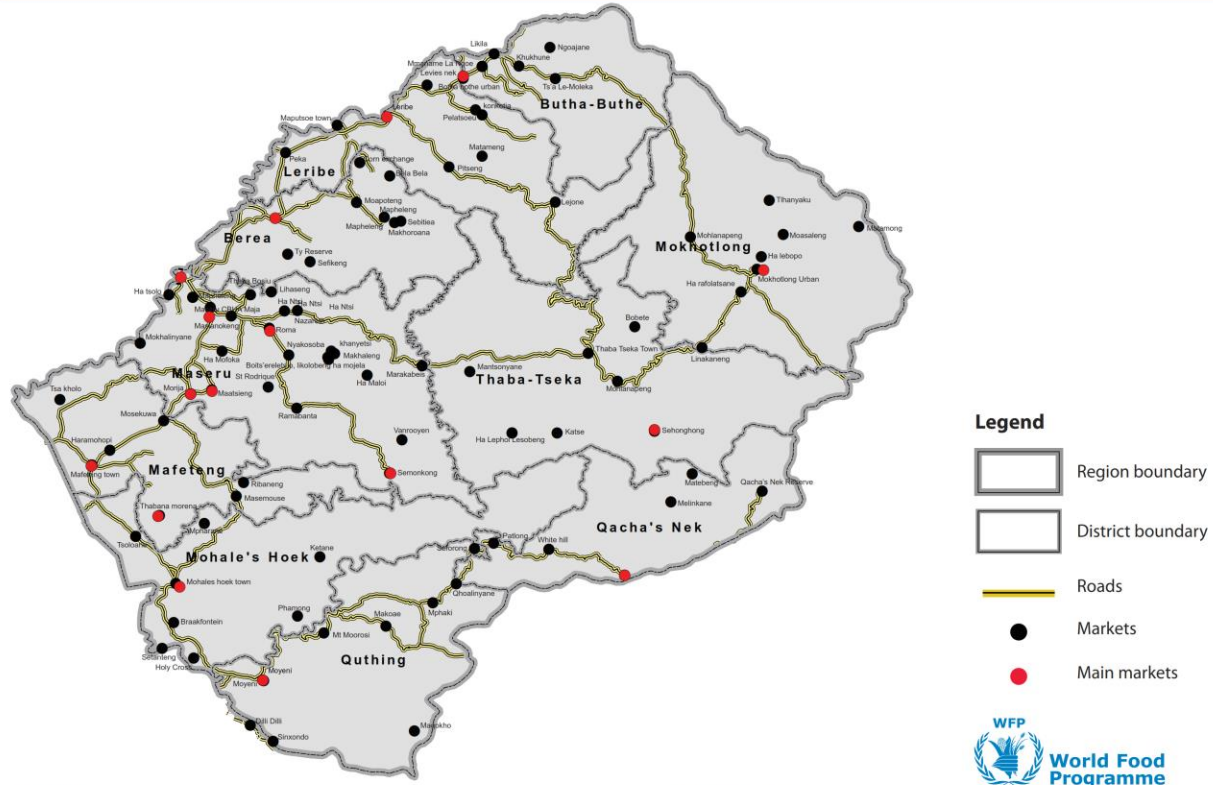
The field level assessment took place over 7 days (25th of February – 2nd of March 2016). Ten key informant interviews were delivered and 110 markets from 10 districts were assessed (see **Map 2**). From these markets, 15 wholesalers, 90 medium traders and 189 retailers were interviewed using structured questionnaires for a total of 294 traders interviewed. An additional 49 traders were interviewed using the agriculture inputs questionnaire. The primary data collected at each market was analysed using Microsoft Office Excel and SPSS software.

The assessment was conducted by 41 enumerators from eight different organisations: DMA (15), Small Business Development Cooperatives and Marketing (10), Food and Nutrition Coordinating Office (2), Ministry of Agriculture and Food Security (1), Catholic Relief Services (2), Red Cross (3), World Vision International (3), UN Food and Agriculture Organization (2) and UN World Food Programme (3). The enumerators were divided into 10 teams (**Table 5**), one per district. Each team was composed of a mix of 4 enumerators from different agencies: a team leader representing one of the eight organisations collaborating in the assessment, an enumerator from DMA, an enumerator from marketing and another enumerator from either an NGO or UN Agency.

¹⁰ The LVAC 2016 Intervention Modality Selection Report identifies the recommended intervention modality by district/council (LVAC, 2016a).

Map 2: Geo-locations of markets assessed

Lesotho Market Study: Location of markets assessed



Disclaimers:
The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

Creation date: May, 2016
Source: WFP VAM, Lesotho CO



Source: LVAC Market Assessment 2016

Table 5: Districts covered by the 10 teams in the market assessment

District	Butha-Buthe	Leribe	Berea	Maseru	Mafeteng	Mohale's Hoek	Quthing	Qacha's Nek	Mokhotlong	Thaba-Tseka
Vehicle	DMA 1	FAO	DMA 2	DMA 3	DMA 4	DMA 5	DMA 6	WVI	WFP	DMA 7
Team Leader	DMA	FAO	WVI	DMA	DMA	WVI	DMA	WVI	WFP	MoA
NGO/UN enumerator	FNCO	FAO	CRS	DMA	Red Cross	Red Cross	FNCO	WFP	WFP	CRS and Red Cross
Ministry of Marketing enumerator	Marketing	Marketing	Marketing	Marketing	Marketing	Marketing	Marketing	Marketing	Marketing	Marketing
DMA enumerator	DMA	DMA	DMA	DMA	DMA	DMA	DMA	DMA	DMA	DMA

Source: LVAC Market Assessment 2016

2.3 Limitations

The assessment has limitations that readers should be aware of. The main ones being:

- Markets are dynamic and constantly evolving. They depend on interactions between supply and demand, which can change from one day to the next. The market assessment took place in late February/ early March, two months ahead of the main harvest period in the country and the region as a whole. February – March represents the peak of the lean season and during this period most if not all rural households are consuming market purchased foods. It is expected that as the harvest takes hold, markets in Lesotho will slightly decrease their food sale volumes as households are expected to start consuming from their own production. The household harvest this year however is expected to be below average across the country.
- Coverage of the market assessment was limited to the size of the assessment team and time constraints affecting the assessment. Training of the enumerators and data collection was conducted in a reduced space of 10 days total.
- Many of the traders interviewed were foreign nationals and had difficulty in communicating in Sesotho and English, possibly leading to some inaccurate data having been collected.
- Some traders owned different shops in the same town/village causing possible duplication of storage and volume figures.
- Mentioning a cash and vouchers intervention raised some traders' interest, possibly causing inflationary estimates on volumes traded.
- Some trade is informal and undertaken between neighbouring households. This type of trade bypasses most of the assessed markets and therefore has not been captured by the market assessment. Maize grain and sugar beans are some of the prime food commodities traded informally between households.
- Even though key informants were used to identify the markets used by beneficiaries, there still remains a possible margin of error in selection of the key markets. Future identification of key markets used by food insecure populations should come from the vulnerable populations themselves during household food security assessments such as the annual VAC assessment. This would enable greater precision in asserting those markets which are used by the food insecure to purchase their food needs.

Section 3: Market Structure, Conduct and Import Requirements

Three main food crops are grown in Lesotho: maize, wheat and sorghum. Maize dominates local cereal cultivation with 70-80 per cent of total national cereal production. The bulk of home-grown maize is cultivated in the lowlands of Lesotho whereas the mountain areas produce most of the country's wheat crop. Leribe, Maseru, Mokhotlong and Berea are the four leading districts in maize production and jointly they provide 75 per cent of the country's maize production.

Lesotho has averaged an annual cereal production of 97,600 tonnes since 2007 which breaks down to about 76,000 tonnes of maize (see **Table 6** below), 9,600 tonnes of sorghum and 12,000 tonnes of wheat on average, annually. However, even in good harvest years, Lesotho only produces enough to meet roughly 30 per cent (110,000 tonnes) of its annual cereal requirements which are approximately 360,000 tonnes. The low levels of production are primarily down to Lesotho's high cereal production costs and low yields per hectare (on average 0.5 MT/hectare). Lesotho imports on average 60 per cent of its annual maize requirements and 80 per cent of its annual wheat requirements from South Africa.

Table 6: Maize production (MT) by District in Lesotho since 2010

District	Actual				Forecasts
	2010/11	2011/12	2012/13	2013/14	2014/15
Botha-Bothe	3,670	3,884	3,180	2,673	4,505
Leribe	14,488	7,598	13,947	14,479	22,211
Berea	6,686	5,037	13,817	15,608	9,454
Maseru	10,232	7,730	15,671	15,171	19,504
Mafeteng	6,284	1,850	10,069	10,200	7,763
Mohale's Hoek	5,791	2,297	3,529	11,175	4,766
Quthing	5,088	1,958	2,813	3,474	1,734
Qacha's Nek	2,775	760	1,696	951	528
Mokhotlong	11,213	7,278	13,493	10,537	4,734
Thaba-Tseka	6,963	4,078	8,089	6,361	3,048
National	73,390	42,471	86,304	90,628	78,246

Source: LVAC Market Assessment 2016

Lesotho's open economy policy allows for unrestricted movement of goods and provision of services from South Africa hereby greatly facilitating trade with South Africa. This open door policy has enabled the private sector to take a leading role in bridging the country's food needs through commercial imports. As a result of its heavy dependence on food imports from South Africa, Lesotho's market structure (food supply chain and value chain) is well-established country-wide. Road networks are good, especially between key cities across districts and storage capacity as well as trader networks are well-developed.

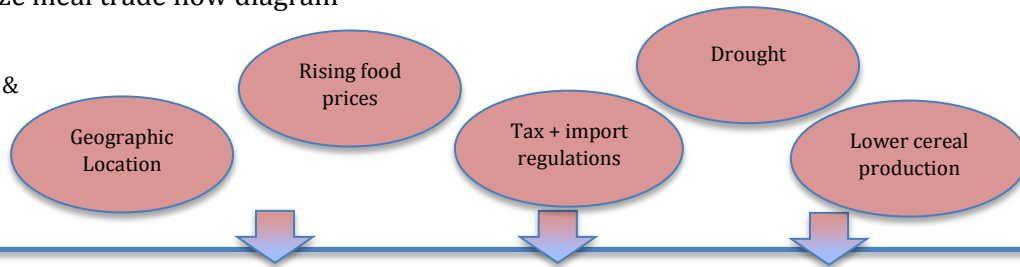
Maize meal and wheat flour reach Lesotho markets and final consumers (households) through a number of supply routes as shown in the three points below and in **Figure 4**, below:

- i) One route is through large millers (Lesotho Milling Ltd. and Lesotho Mills) who are known to import up to 150,000 tonnes of maize grain and 90,000 tonnes of wheat from South Africa per year. Once milled 20-25 per cent is removed as bran and is used as animal feed while the remaining 75-80 per cent is used to produce a variety of maize meal products which are sold across the country.
- ii) A second supply route is via traders who venture across the border to purchase South African maize meal and wheat flour and import it VAT¹¹-free into Lesotho; maize grain has 14 per cent VAT on it which increases traders' preference on importing maize meal.
- iii) A third supply route is through local small-holder production which due to the low average maize yields (1MT/Ha) is however by-and-large not enough to meet household's annual maize requirements. Informal house-to-house trade of maize grain does occur but is at negligible levels. Other food supply routes can be food stocks brought forward from the previous marketing season, food aid imports through WFP and WVI, and other channels like religious based organisations and, occasionally, government-to-government bilateral arrangements.

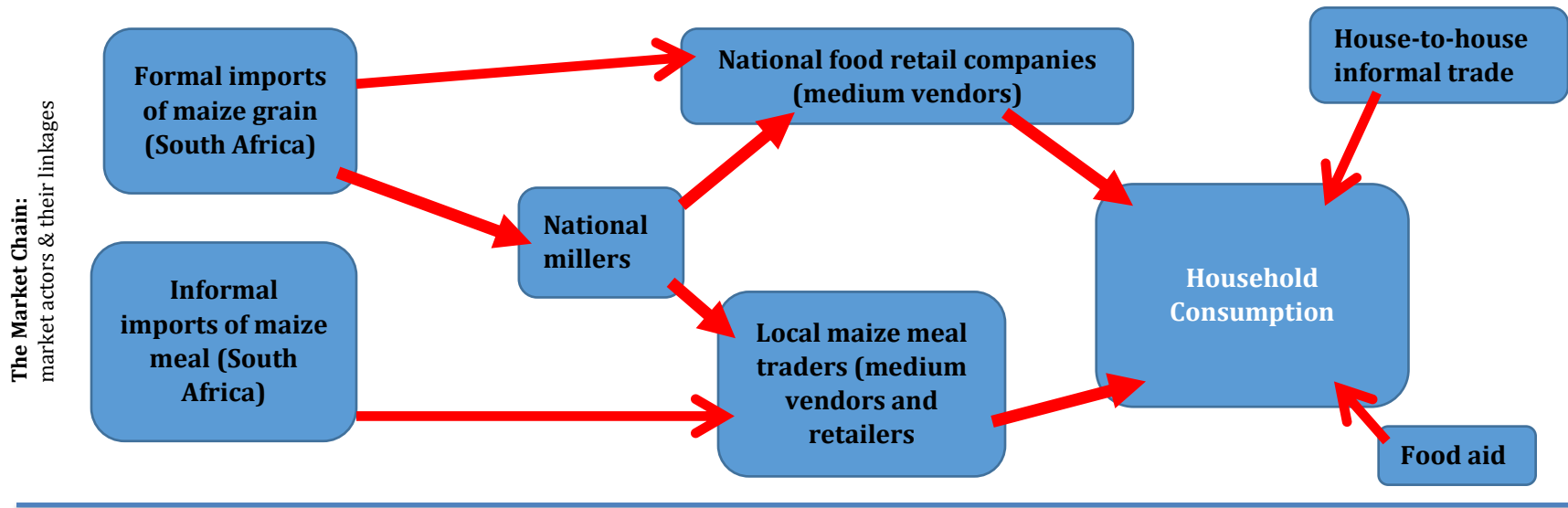
¹¹ VAT: Value Added Tax

Figure 4: Lesotho maize meal trade flow diagram

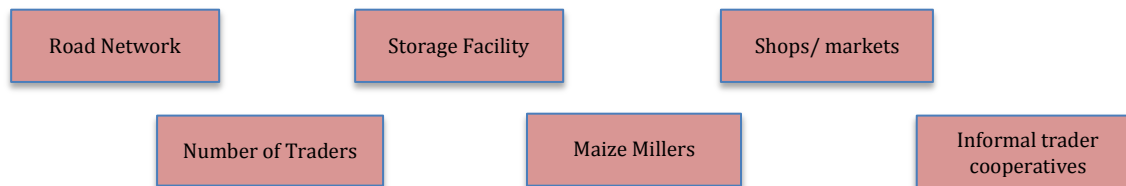
Market environment:
institutions, rules, norms & trends



Key:
Direction and volume of maize meal trade in Lesotho →
Highest volumes of maize meal trade in Lesotho →



Key Infrastructure:
Inputs and market-support services



Source: LVAC Market Assessment 2016

The maize market actors are described in **Table 7** (below). This report focuses on the following groups of maize meal traders in more detail: large scale traders (wholesalers), medium sized traders/ (medium vendors) and small scale traders (retailers).

Table 7: Detailed description of maize meal market actors in Lesotho

Small scale traders (retailers)	Purchase from producers, traders and processors in the same district or from nearby districts. These actors sell directly to the final consumers using primarily small sized maize meal bags (5kg, 7.5kg and 12.5kg and sometimes 50kg). This group never sells to processors or institutions. Their capital and trade capacity is low; they merely meet their minimum requirements to satisfy their short-term livelihood needs.
Local producers, local assemblers	Produce, purchase, stock and trade maize grain locally (at council level). Smallholder farmers tend to harvest maize grain by the end of May and will trade it from June – September to local assemblers and traders. Generally they produce just enough to be self-sufficient during the year and what little surplus they have they sell informally to neighbouring households or to local small scale traders in local markets. They sell any surplus to the market and use markets to buy maize grain in the lean period.
Informal traders	An important supply chain for maize meal trade. At border points small scale informal traders frequently import small volumes of maize meal. These traders store and trade the informally imported maize grain locally (within the district/council). Informal trade is not limited by import tax and takes place all year-round.
Large traders (wholesalers) and assemblers	They purchase stock just after the harvest (June-September) from South Africa and transport the maize meal from wholesalers in South Africa to their warehouses in Lesotho where they store it ahead of selling it to traders in the lean season. They rarely sell to consumers and if they do, it is in 50kg+ bags. The financial capacity of this group of traders is strong compared with the medium traders and retailers. The number of large vendors at district level markets is low, usually no higher than two.
National millers	Procure maize grain internationally (South Africa) and proceed to mill it and trade the maize nationally in differentiated milling grades and bag sizes for human consumption. Approximately 20 per cent of milled grain is sold as animal feed. Due to limited storage capacity national millers buy in bulk in quarterly intervals.
Medium sized traders (medium vendors)	Purchase maize meal from processors and other traders (wholesalers or other traders) and in most cases sell to small scale traders (retailers) and/or consumers, using both retail and wholesale units. Due to greater liquidity capacity than small scale traders, medium sized traders are known to travel long distances to buy their maize meal at the cheapest price and in bulk volumes. These traders sell maize meal in different sized bags (5kg, 7.5kg, 12.5kg, 50kg, and 80kg). They are different to big vendors in that they sell in retail units directly to consumers. They are known to collude with other medium sized traders to buy in bulk reducing purchasing costs. It is not uncommon to find these traders owning multiple shops in the same town or across the same district. The number of medium vendors is slightly higher than big vendors in a given market location, but lower than small scale/ retail traders. However, in isolated areas across Lesotho medium vendors can out-number retailers.
Food Aid	Organizations (typically WFP, Red Cross, WVI and religious based organisations and The Ministry of Social Welfare) are known to buy maize grain internationally to distribute it to the most vulnerable and food insecure populations in a region/country. The beneficiaries would then proceed to have the maize milled at local millers for personal consumption. In some instances, these organisations have contracts with milling companies who will mill the grain, after which maize meal is distributed to beneficiaries

Lesotho follows a three-level market network system: where primary, secondary and tertiary markets exist. This system ensures that food such as maize meal is moved from food excess to deficit areas or where demand for the commodity is greatest. This system is further explained in **Table 8** below:

Table 8: Detailed description of maize meal market actors in Lesotho

Primary (regional and national) market	<p>A market that supplies secondary markets with food commodities. These are key hub markets dealing with large volumes of trade at one time and have regional and national reach. These markets source their food supplies from key maize grain and maize meal surplus markets nationally and internationally (South Africa), store it locally in warehouses and supply food to maize deficit markets where demand outstrips supply. These markets tend to have medium sized traders/ assemblers and wholesalers/ large assemblers/ national millers. Examples of tertiary markets are Maseru and Leribe. Prices of goods in these markets are the cheapest in the country as transport costs are lowest and the supply chain for the goods shortest. The strong financial capital of traders in these markets means that actors can trade in wholesale quantities, reducing costs through economies of scale.</p>
Secondary (district) market	<p>A market that supplies the tertiary market with food commodities, usually located in the main town of the district. Traders in secondary markets have greater access to finances and infrastructure such as good mobile coverage and supply routes. These markets have a wider sphere of influence than primary markets and their traders' trade in greater volumes than those in primary markets. National and regional milling and retail companies (supermarkets/ medium traders) are often found in Lesotho's secondary markets as well as retailers and wholesalers. These agents use this market to store and sell maize meal to the entire district's population. Examples of secondary markets are Mt. Moorosi in Quthing; Mohale's Hoek Town in Mohale's Hoek; Butha Buthe Urban in Butha Buthe, Maputsoe Town in Leribe, and Mantsonyane in Thaba-Tseka.</p>
Tertiary (local) market	<p>A local shop where rural and isolated communities buy their food from. These shops tend to be located in a main village used by the food insecure population scattered up to 40kms away from the village. These primary shops are generally built of brick/stone or sometimes mud-bricks and sell a variety of commodities; from food to clothes to building materials. They act as a general amenity store operated by retailers. Examples of primary markets are Bobete in Thaba-Tseka, Mapholaneng in Mokhotlong, White Hill in Qacha's Nek, Masemouse in Mafeteng, Morija in Maseru and Lejone in Leribe. Road infrastructure tends to not be well maintained gravel roads and financial infrastructure is basic or non-existent. Traders depend heavily from imported food as local production is minimal. It is common for retailers in these areas to use local buses which depart and return daily to the main town in the district while medium sized traders tend to have their own trucks to use for procuring food from the main market in the district. Food prices in these markets tend to be higher than in other markets in the country due to the greater distance the food has to travel to reach it and the longer supply chain.</p>

In Lesotho goods steadily flow from primary to secondary to tertiary markets through-out the year without major bottlenecks/constraints. A well-constructed network of traders exists at each level enabling food to be traded and delivered in a matter of days. Lesotho has an important number of shops which are foreign owned. Foreign traders in Lesotho were found to be part of a tight-knit trader network enabling these traders to access large volumes of goods in a short timeframe and at competitive prices. Shops in isolated markets/ villages in a district tend to be poorly stocked due to low household income

which reduces demand. Conversely the key market in a district tends to be well stocked both in volume and diversity of goods sold.

Maize meal is either milled and distributed nationally by national milling companies such as Lesotho Flour Mills and Lesotho Milling Ltd. or imported and traded informally from South Africa by local traders. Apart from large volumes of maize grain being imported by the national milling companies, maize grain trade in Lesotho is negligible in volume compared to the trade in maize meal.

A similar formal trade structure to maize meal is used in Lesotho for the sale of sugar beans and cooking oil. Cooking oil is imported from South Africa and distributed nationally by retail companies such as Pick & Pay and Shoprite or imported informally and distributed locally by local traders. Sugar beans however even though traded formally are more likely to be traded informally house-to-house similar to maize grain trade.

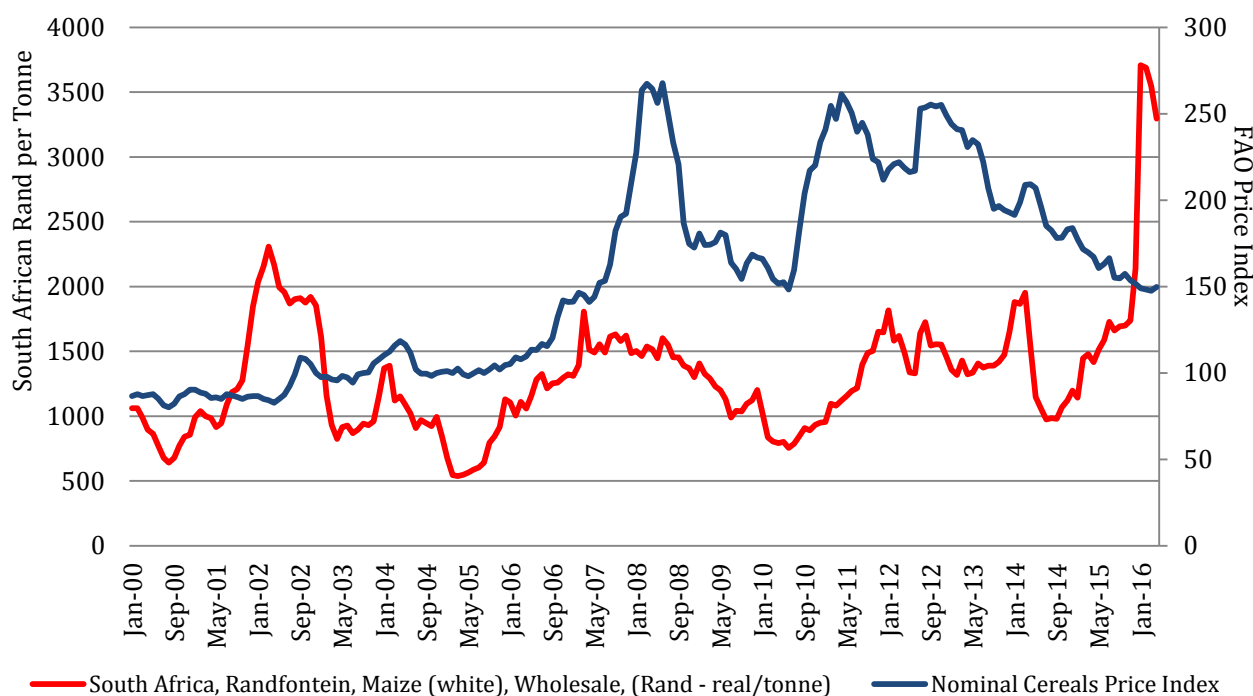
Section 4: Price Analysis

Lesotho is a largely free-market style economy where demand and supply guides both formal and informal trade of food commodities. Because of the country's high dependence on imported food the Government of Lesotho tends to interfere minimally with the country's food market trade. However, when it does, it does so primarily in the form of subsidies to support access of the poorest and most vulnerable in society to basic food commodities. The Government of Lesotho employs no food import and export restrictions. It does however apply a 14 per cent VAT on all maize grain imports into the country. Lesotho also does not apply any restrictive policies vis-à-vis genetically modified organisms (GMO) crops, hereby facilitating trade with South Africa.

This report's price analyses used 2010-2016 nominal retail prices of maize meal provided by BoS. Price data was not available for tertiary markets so the analysis is limited to the main markets in all districts (secondary markets). Maize meal is the prime staple consumed by households in Lesotho therefore the national average price of maize meal for a 12.5kg bag was used to indicate price trends over time.

4.1 Price Volatility

When compared to world cereal prices, the price of white maize in the region, specifically in South Africa, has recently been increasing contrary to the international cereal price trend. **Figure 5** below clearly shows this inverse trend, where FAO's Cereal Price Index illustrates that over the past 3 and a half years cereal prices have been falling to 7 year low levels while conversely the price of white maize in South Africa has instead sharply increased since September 2014. An important reason behind the increase in South Africa's white maize price is led by the ratio of white to yellow maize produced in the world. Only around 5 per cent of world annual maize production is white, the remaining 95 per cent being yellow. Moreover, Southern African culinary habits are also affecting the price increase as white maize is the most preferred staple for human consumption in the region; yellow maize being largely used for animal feed. The two consecutive drought years experienced in the region (2014-15 and 2015-16), which were exacerbated by one of the worst El Niño weather events in 35 years in addition to 2015 being recorded as the hottest year on record for South Africa, have significantly reduced cereal stocks and crop production levels in the region, where an important part of the world's white maize grain is grown. Global stock of white maize grain has reduced as a result pushing-up white maize prices across Southern Africa.

Figure 5: Price of white maize (retail) in South Africa compared to the FAO Food Price Index over time

Source: *FAO GIEWS*

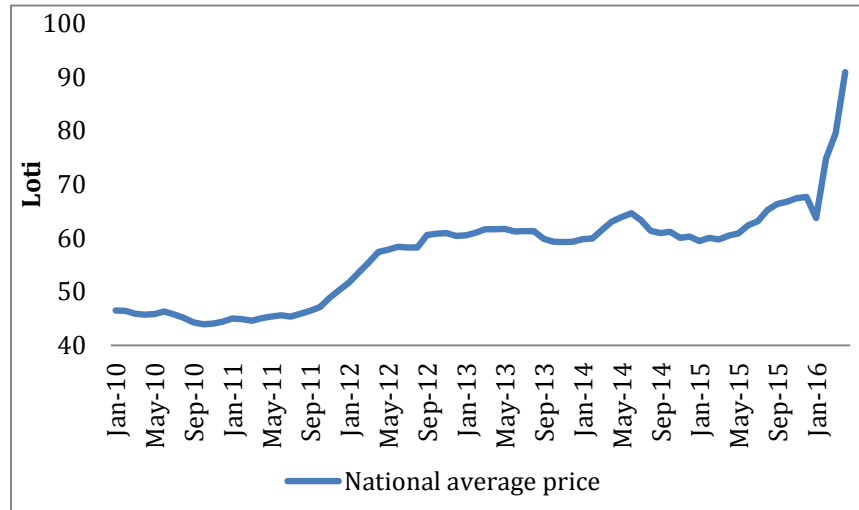
The serious national currency devaluations experienced in the region in 2015 and continuing into 2016 have largely been influenced by falling world-wide commodity prices. Southern African economies depend heavily on exporting raw natural materials and the recent falling demand from China has led to a global glut in natural resources pushing down prices and also southern African countries' national currency with it. Between February 2015 and February 2016, many currencies in the region have experienced dramatic devaluations.

Over the space of a year (February 2015 to February 2016) and compared to the US Dollar, Zambia's Kwacha fell by as much as 61 per cent in value; Mozambique's Metical by up to 50 per cent; Angola's Kwanza by up to 50 per cent; and South Africa's Rand to which the Lesotho Loti is pegged to, fell by as much as 25 per cent. Currency devaluations have made imports relatively more expensive, hereby reducing supply and driving up prices of imported goods in the region. Transportation costs are also contributing to the increasing price of imported foods especially for land-locked, maize deficit, countries. The ongoing lean season which has been extended by a month (until May 2016) due to the delayed planting rains, is further having an effect on price increases.

As mentioned earlier, Lesotho imports close to the entirety of its annual food import requirements from South Africa. Food prices therefore tend to follow South African food price trends which generally tend to be stable, however as discussed earlier white maize prices have increased in South Africa since September 2014 and have significantly increased since November 2015. As shown by **Figure 5** (above) the wholesale price of white maize in South Africa has skyrocketed from an average of RSA 3,226.52 per tonne in November 2015 to an average of RSA 4,991.57 per tonne in February 2016 representing an increase of 54.7 per cent over 3 months. The SAFEX price of white maize in February 2016 was on

average 111.4 per cent above its five year average for the time of year. This has had a fall-on effect on the nominal retail price of maize meal in Lesotho. Food prices in Lesotho have begun to increase sharply as of January 2016 when renewed bulk restocking by the country’s two largest maize importers (Lesotho Milling Ltd. and Lesotho Mills) was undertaken from South Africa (**Figure 6**). As a result the Lesotho national average nominal maize meal price of a 12.5kg bag has increased by 42.7 per cent between January and April 2016. Furthermore, the April maize meal national price is 58 per cent higher than the five year average for the time of year and is expected to increase further as the year progresses (see **Figure 8**).

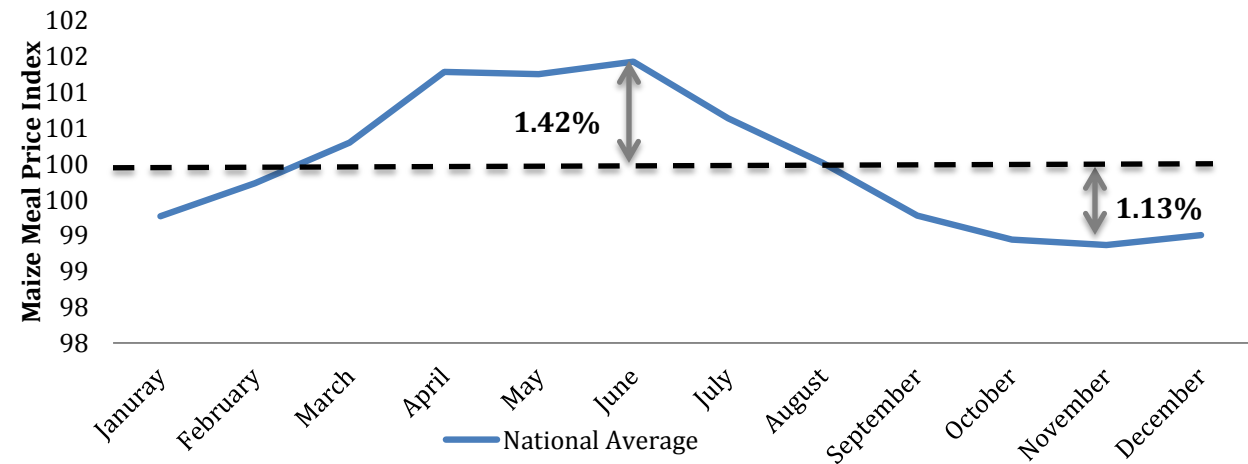
Figure 6: Nominal national average monthly price of maize meal (Loti/12.5kg bag)



The Grand Seasonal National Index (GSNI) is an average of seasonal indices and shows the average price trend in one season (12 month period). From **Figure 7** it is clear that usually Lesotho has a very stable maize meal market price which only marginally varies (by under 1.5 per cent) from the annual average price. In other words, in a typical year, seasonality does not affect Lesotho’s market maize meal price much.

Source: LVAC Market Assessment 2016

Figure 7: Maize meal grand seasonal national price index 2010-16



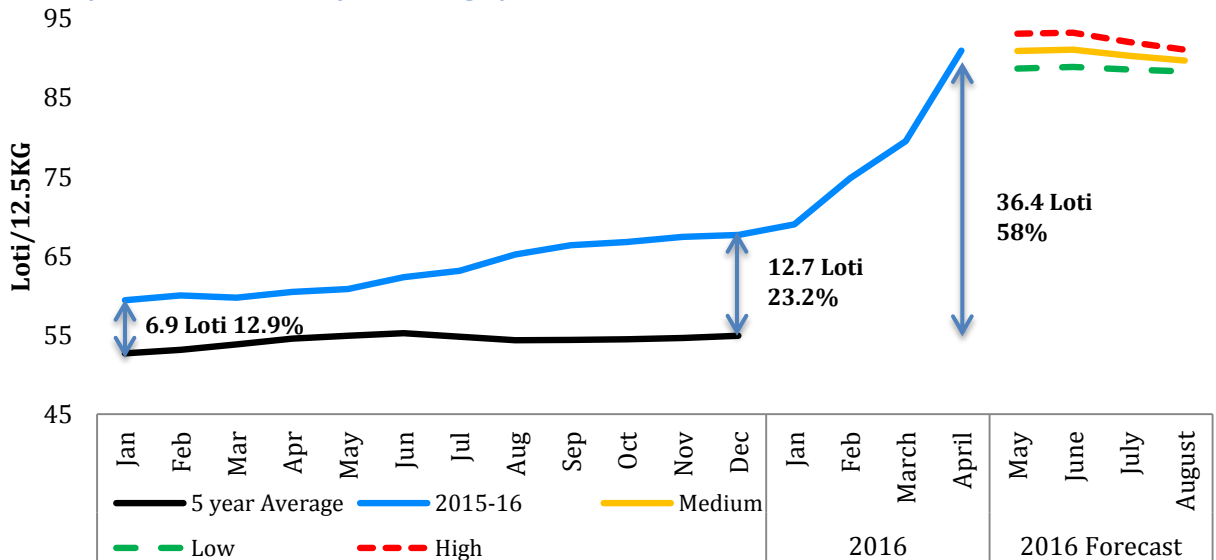
Source: LVAC Market Assessment 2016

Figure 8 (below) uses the current price trend in addition to applying the GSNI data and a 5-year average monthly variance of prices, to project a 4-month forecast of likely future national average maize meal prices in Lesotho. The graph depicts three scenarios, a low trend price scenario where the price of a 12.5kg bag of maize meal will initially decrease slightly from the current 90.93 Loti per 12.5kg down to

88.7 Loti per 12.5kg after which prices will remain relatively constant. The medium price scenario projects the price of a 12.5kg bag of maize meal to remain constant at 90.9 Loti until June 2016 and to then gradually decrease to 88.7 Loti by August 2016. The high price scenario forecasts the price of maize meal to initially increase to 93.11 Loti per 12.5kg bag and after June 2016 to decrease to 90.5 per 12.5kg bag.

Figure 8 also clearly illustrates the increasing price trend in Lesotho. Already at the start of 2015 maize meal prices were on average 12.9 per cent above their 5 year average level for the time of year. As the year unfolded this gap nearly doubled to 23.2 per cent. However, since the start of 2016 price increases in Lesotho have become more pronounced. In April 2016 the national average price of a 12.5kg bag of maize meal was 58 per cent above the 5-year average for the time of year. This increase is a direct result of the increasing prices of white maize in South Africa.

Figure 8: Lesotho forecast of national average maize meal 2016 retail price (Loti/12.5kg) compared to 2015/16 price trend and five-year average prices



Source: WFP VAM Portal

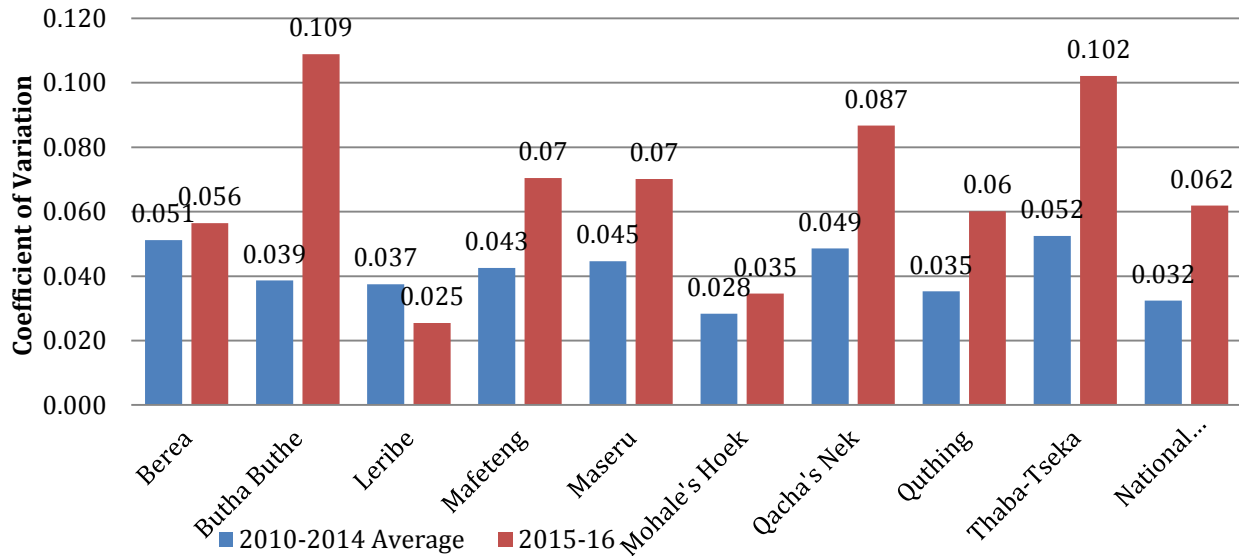
High price variability can lead to distorted and mal-functioning/fragmented market systems as well as leading market actors to take mitigating measures to minimize their risk to and repercussions from the high price variability. Two mitigating measures were found to be popular among traders in Lesotho:

- 1) Traders (usually from the same nationality) organized themselves together to restock in-order to receive a more competitive restocking price as well as sharing the transport cost, hereby reducing overhead costs;
- 2) Due to the sharply increasing prices, especially of maize meal, traders were selling at breakeven prices as a measure to retain their market share (not losing their clients to other traders offering cheaper prices as many customers especially in rural more isolated communities have limited incomes and can ill afford changes to their household expenses).

Price volatility is measured by taking the current price of a good and measuring its gap (numerical difference) to the average price for the period analyzed. This analysis is computed through the coefficient of variation¹² which indicates the level of dispersion prices have from their mean. The coefficient of variation provides a useful understanding of how prices have changed in the past and uses this information as a useful indication as to the probable changes in price levels in the future. With little variation in price overtime we can be sure that prices will tend to remain relatively stable while with a high reported price variation the opposite is likely to occur. This is a useful indicator which helps reduce uncertainty for decision makers and provides evidence to support market based response options.

With a national average price variation of 3.2 per cent on a 12.5kg maize meal bag during 2010 – 2014, **Figure 9** further confirms Lesotho’s stable maize meal prices (see **Figure 7**). Maize meal price variability in key district markets (secondary markets) across Lesotho tends to be low averaging between 2.8 per cent in Mohale’s Hoek to 5.1 per cent and 5.2 per cent in Berea and Thaba-Tseka respectively during 2010-2014. This is a good indication that key markets in all districts across Lesotho have a well-established maize meal market system with actors keeping prices stable over time.

Figure 9: Comparing maize meal coefficient of variation for key district markets over time 2010-14 annual average with 2015-16



Source: LVAC Market Assessment 2016

When looking at maize meal price variation for the 2015-16 season (data up to February 2016), it is clear that the current season has been an out of the ordinary. The national average maize meal price variation has double from 3.2 per cent in 2010-2014 to 6.2 per cent in 2015-2016. Moreover, price variation across the key markets in the country has now widened from the low 3.5 per cent maize meal price variation in Mohale’s Hoek to a high 10.9 per cent price variation in Butha-Butha. This data prompts concern on the stability of maize meal prices for the 2016-17 marketing season. If already in key district markets (secondary markets) in Lesotho maize meal prices are starting to vary significantly from their

¹² Coefficient of variation is calculated as the ratio of the number of standard deviation a particular figure has from the mean/average figure for the sample.

mean, this effect could be exacerbated in more isolated and less ‘connected’ (to the national maize meal supply chain network) food markets.

4.2 Market price integration¹³

Market integration analysis forms an important component in understanding market functionality. Markets are said to be integrated when price changes of a food commodity move in parallel and by the same extent between different markets and when goods flow freely between markets.

Correlation coefficients are an added useful indication of market functionality¹⁴. Price correlation coefficients of 0.8 and above suggest markets are strongly integrated, with a correlation coefficient of 1.0 representing two completely integrated markets¹⁵. Instead a correlation coefficient of 0.7 or below represents weak market integration.

It is important to note that more contextual information such as, and not limited to: number of traders, storage capacity, source of food, trade constraints and food availability need also be analysed. These will help in consolidating the significance of the correlation coefficient data towards identifying two markets’ degree of integration and will provide a more holistic understanding of the capacity of a market and why price changes have and are occurring as observed.

Table 9 correlates the average price of a 12.5kg bag of maize meal across key district markets in Lesotho between January 2010 and February 2016. The table shows markets where a strong maize meal price correlation coefficient is found between two markets (dark green colour in the table), suggesting that these markets are likely to be well integrated in maize meal trade. The table also shows where weaker maize meal price correlation exists between markets (light green).

Table 9: Price correlation coefficients of key markets in 9 of the 10 districts covered by the market assessment

Lesotho Maize Meal Price Correlation Table (12.5 kg bags)									
	Berea	Butha Buthe	Leribe	Mafeteng	Maseru	Mohale's Hoek	Qacha's Nek	Quthing	Thaba Tseka
Berea	1.00								
Butha Buthe	0.71	1.00							
Leribe	0.89	0.76	1.00						
Mafeteng	0.96	0.84	0.91	1.00					
Maseru	0.94	0.85	0.92	0.98	1.00				
Mohale's Hoek	0.90	0.91	0.90	0.95	0.94	1.00			
Qacha's Nek	0.89	0.87	0.80	0.93	0.94	0.92	1.00		
Quthing	0.91	0.90	0.89	0.97	0.97	0.95	0.95	1.00	
Thaba Tseka	0.89	0.85	0.91	0.93	0.94	0.91	0.88	0.94	1.00

Source: LVAC Market Assessment 2016

¹³ Prices for Mokhotlong District are not included due to insufficient maize meal price data for 12.5kg bags

¹⁴ WFP Market Analysis Framework, December 2011

¹⁵ Price levels do not have to be identical for markets to be integrated. In fact market prices for the same product are rarely at the same level between different markets due to varying transport costs and varying number of actors on a markets’ supply chain. To be fully integrated, prices for the same commodity in different markets will have to change by exactly same amount (per cent ratio of the final selling price) across different markets. Furthermore, it is important to note that it is not possible to use correlation coefficients alone as a proxy for market integration as other unobservable factors may be driving the price trends.

With the exception of Mokhotlong district, which has been omitted due to insufficient availability of price data, **Table 9** shows that all key district markets are integrated with each other in Lesotho. With the exception of Berea's regression with Butha Buthe and Butha Buthe with Leribe, all other key markets when correlated with another key district market, registered a price correlation of 0.8 or higher. This trend suggests that: 1) all markets use similar source markets, 2) the network of key markets in Lesotho is well interconnected, 3) transport costs do not vary much between districts and 4) maize meal price information is readily available.

Section 5: Assessment of Traders and Markets

The following section of the report looks specifically at trader analysis. Data for this section was drawn from the primary data collected through the LVAC field traders' survey questionnaire. Considering the high number of markets assessed (110), results of the markets' analysed data is divided into broader categories such as by national averages and by traders' typology (retailer, medium vendor, and wholesaler). Where possible the data is broken down further to highlight possible district disparities.

5.1 Traders' Characteristics

The breakdown of the traders interviewed through the market assessment by operation size is as follows: 5.1 per cent (15) big vendors, 30.6 per cent (90) medium vendors and 64.3 per cent (189) retailers (**Table 10**). This outlines that Lesotho has a high retail trader base with a well-established group of medium vendors and a small group of wholesalers. The percentage of big traders in the assessed markets is low due to their large volume of trade and the small dimensions of the country, which allows wholesalers to have regional and national reach. These percentages have not changed much (wholesalers 4.2 per cent, medium vendors 30.8 per cent, and retailers 65 per cent) since the previous market survey¹⁶ conducted in 2011, which covered the following four districts: Berea, Maseru, Mokhotlong and Thaba-Tseka.

Table 10: Trader breakdown by type of trader

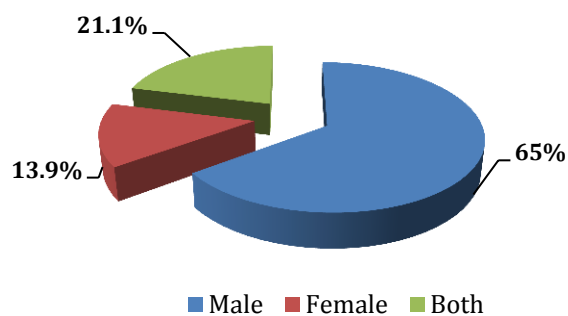
Trader Type	2016 Study		2011 Study
	% of Total	Total number	
Retailers	64.3	189	65
Medium vendors	30.6	90	30.8
Wholesalers	5.1	15	4.2

Source: LVAC Market Assessment

All of the traders interviewed were selling their food commodities from an established shop. The typical small scale and medium trader will sell a multitude of food and non-food items at any one time and will in general (92 per cent of the traders) operate on a daily basis (Sunday closures not considered). Maize meal, sugar beans and cooking oil are reported to be available throughout the year across the country.

¹⁶ WFP 2011, Lesotho Market Assessment

Figure 10: National average of trader gender



Source: LVAC Market Assessment

Figure 10 breaks down the business ownership by gender. As is visible from the pie chart, trade in food commodities is largely male dominated with just under two-thirds of the interviewed traders mentioning sole ownership being male and 14 per cent of ownership being female. Dual ownership was reported at 21.1 per cent. Furthermore, as shown by the **Table 11**, men are by far the most frequent traders throughout all trade size categories. Women tend to be present more at the medium vendor and retailer levels even though still a minority (13.9 per cent). In the big vendor

category men dominate outright with women only playing a role when ownership is combined. The higher proportion of men in food trading compared to women could be outlining possible constraints for women to join and work in this sector.

Table 11: Business ownership by trader gender

	Retailer (%)	Medium Vendor (%)	Big Vendor (%)	% of Total
Male	61.9	70	73.3	65
Female	17.5	8.9	0	13.9
Both	20.6	21.1	26.7	21.1

Source: LVAC Market Assessment

Table 12: Trader nationality

	Retailers (%)	Medium Vendors (%)	Wholesalers (%)	% of Total
Mosotho	74	20	0	53.6
Foreigner	26	80	100	46.4

Source: LVAC Market Assessment

Trader nationality was noted by many Mosotho (local) traders to be an important element to look at

due to the high levels of competition from foreign traders that local traders are being subjected to. The assessment found that in general 53.6 per cent of assessed food trading businesses were Mosotho owned and 46.4 per cent were foreign owned. **Table 12** looks at the data in more detail and found that foreigners dominated the wholesaler businesses while Mosotho's dominated the retail trade. Medium vendors were also largely foreign owned too. Again compared to the 2011 Market Assessment, figures have not changed much; wholesalers 100 per cent foreign owned businesses, medium vendors 77.8 per cent foreign owned businesses, and retailers 70.3 per cent Mosotho owned businesses. This shows that there is relative stability in the maize trade business.

Table 13: Percent trader nationality by district in Lesotho

District	Per cent Trader Nationality by district	
	Mosotho	Foreigner
Butha-Buthe	36.7	63.3
Leribe	37	63
Berea	32.1	67.9
Maseru	54.3	45.7
Mafeteng	61.3	38.7
Mohale's Hoek	40.7	59.3
Quthing	60.7	39.3
Qacha's Nek	82.6	17.4
Mokhotlong	61.9	38.1
Thaba Tseka	72.7	27.3

Trader nationality is likely to be a contentious area where CBT interventions may wish to use foreign owned businesses due to their greater financial base and greater ease at restocking important commodity volumes per restocking trip, however by so doing making the local (Mosotho) traders more vulnerable. This may be an important aspect to look at in Butha-Buthe, Leribe, Berea, Maseru and Mohales' Hoek where foreign food traders outnumber Mosotho food traders (**Table 13**).

Source: LVAC Market Assessment

The length of time during which traders have operated a shop for has implications on the performance, trade capacity and reliability of the business as well as giving insight into a general market's functionality. The more years of experience a trader has the greater the likelihood that the trader will know when and from where to purchase and trade goods. Moreover, with increased years of experience traders will have more developed trade networks and will tend to run a more efficient business structure hereby strengthening a local market.

The results from the trader survey (**Table 14**) show that over half of the interviewed traders have more than 5 years of work experience in their current trade and when expanded to one year or higher this figure went up to 89.8 per cent of traders. Retailers, medium vendors and wholesalers tend to have equal years of experience running their business (around 60 per cent of traders at more than 5 years). Retailers though are more likely than the other trader types to have started their business during the past year (10.6 per cent of retailers).

Table 14: Distribution of trader by years of experience:

	Wholesaler (%)	Medium Vendor (%)	Retailer (%)	% of Total
Less than 1 year	0	2.2	10.6	7.5
Between 1-5 years	33.3	32.2	28	29.6
More than 5 years	60	65.6	57.7	60.2
NA	6.7	0	3.7	2.7

Source: LVAC Market Assessment

5.2 Flow and volume of traded commodities

The direction of flow and volumes of traded maize meal, pulses and cooking oil does not vary much during the post-harvest and lean season in Lesotho. With Lesotho depending on 70 per cent of its annual food requirements from South Africa, trade is primarily one-way, inward. **Table 15**, further clarifies Lesotho's stable volume of trade with South Africa.

In 2015 – 2016, wholesalers on average traded 80.5 tonnes of maize meal per week. This figure alternates between seasons and is respectively 59.1 tonnes on average per week in the lean season (October 2015 – March 2016) and is expected to increase to 101.8 tonnes per week in post-harvest (May – August). This is likely linked to the harvest in South Africa which follows similar trends. Wholesalers will be purchasing maize during the harvest at lowest prices, processing the maize into maize meal and storing the maize meal for the lean season when they will be fetching higher prices per kg sold.

The medium vendor trades on average 11.5 tonnes of maize meal per week during the year. This figure oscillates between 6.5 tonnes per week in post-harvest to 5.6 tonnes per week in the lean season and is not expected to change much between seasons. Retailers trade on average 2.9 tonnes of maize meal per week in a year. This figure is not forecasted to change much throughout the year. Trade in sugar beans and cooking oil also is also not expected to change much between 2015 and 2016 (see **Table 15**). Further highlighting that seasonality is not an issue in the country.

Table 15: Average Trade per Week in Commodity by Trader Size

	Maize Meal (MT)		Sugar Beans (MT)		Cooking Oil ('000s litres)	
	Oct '15 –March '16	May '16 – Aug '16	Oct '15 – March '16	May '16 –Aug '16	Oct '15 –March '16	May '16 –Aug '16
Wholesaler	59.1	101.8	2.1	2.5	12.6	11.7
Medium trader	5.1	6	0.27	0.28	1.3	1.2
Retailer	2.8	2.9	0.95	0.14	0.25	0.34

Source: LVAC Market Assessment

Table 16 (below) strengthens the correlation trend shown earlier in **Table 9** (page 30). **Table 16** highlights that there are a few key sources for the country's maize meal: Maseru, Leribe (Maputsoe) and South Africa all used by traders to source their maize meal between 2014 and 2016. This is an important finding as it highlights key trade routes of the maize value chain and also identifies possible bottlenecks for Lesotho's food security.

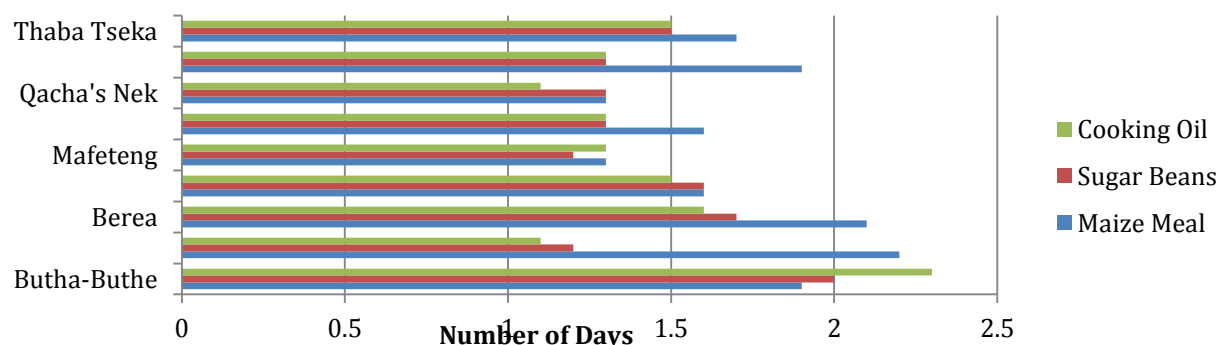
Table 16: Traders' maize meal source reference market

District	Main maize meal trading market in district	Maize meal source market
Butha-Buthe	Butha-Buthe Urban	Maputsoe (Leribe)
Leribe	Maputsoe Town	South Africa
Berea	TY Reserve Mapoteng	Maputsoe (Leribe) Maputsoe (Leribe)
Maseru	Maseru Masianokeng	Maseru Station Lesotho Flour Mills (Maseru)
Mafeteng	Mafeteng Town	Maseru
Mohale's Hoek	Mohale's Hoek Town	Free State (South Africa)
Quthing	Moyeni	Maputsoe Town (Leribe)
Qacha's Nek	Sehlaba Thebe	Matatiele/ Maseru
Mokhotlong	Mokhotlong Urban Salang Urban Matamong	Maseru Maseru Free State (South Africa)
Thaba-Tseka	Mantsonyane	Maseru

Source: LVAC Market Assessment

Even though maintenance of roads is a pending issue in the country, Lesotho can still vouch a strong road infrastructure. **Figure 11** supports this claim and further shows that the trade network in the country is strong as traders restock quickly. On average it takes a trader 1 to 2 days to restock, with the exception of Butha-Buthe where it could take 2-3 days. The bar graph also highlights that maize meal tends to take slight longer to be restocked by district than cooking oil and sugar beans with the exception of Butha-Buthe where maize meal actually takes fewer days to be restocked.

Figure 11: Average number of days it takes to restock by district¹⁷



Source: LVAC Market Assessment

Restocking frequency (number of times food is restocked in a month) does not change much (see **Table 17**) between seasons. Highlighting that trade and demand for maize meal, sugar beans and cooking oil tends to be relatively constant throughout the year, which is normal for a country that imports a majority of its annual food need requirements and is not affected by seasonality trends on food prices and volumes.

Table 17: Average national restocking frequency (number of times) per month by trader type

	Maize Meal		Sugar Beans		Cooking Oil	
	Oct-March	May-Aug	Oct-March	May-Aug	Oct-March	May-Aug
Large scale trader	5.7	5.7	3.2	3.7	3.22	3.8
Medium trader	3.7	3.7	2.2	2.6	2.1	2.5
Small scale trader	3	3.2	2.4	2.9	2.3	2.9

Source: LVAC Market Assessment

5.3 Credit and Stock Strategy

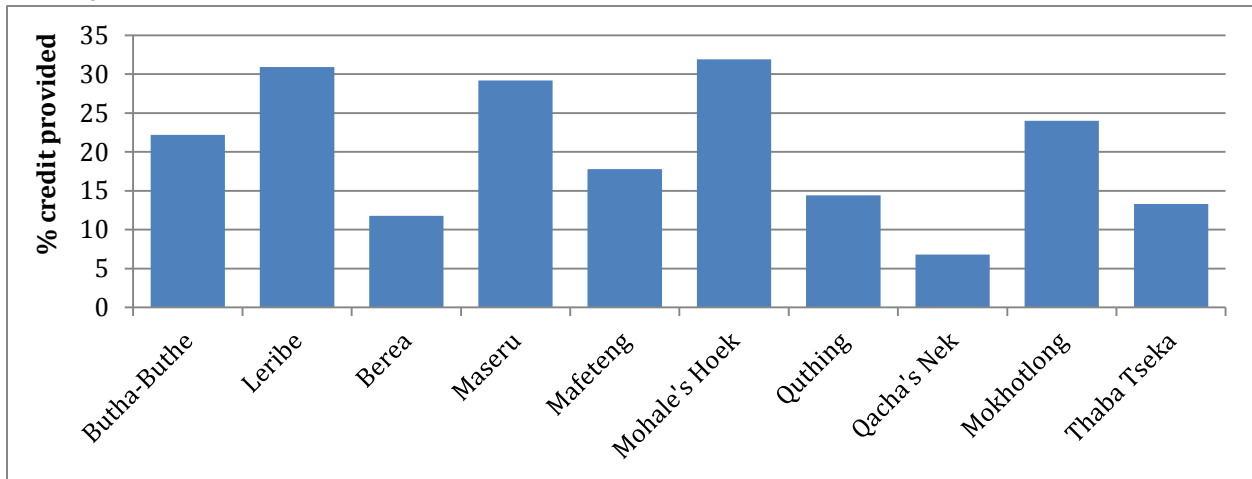
In the last two years, a majority (74 per cent) of the traders interviewed had not requested credit. Of these, 5 percent were big traders (73 per cent of all big traders interviewed); 26 per cent were medium traders (62 per cent of all medium traders interviewed), and 69 per cent were small traders (79 per cent of all retailers interviewed). This implies that a large proportion of traders are dependent on their own capital for trade. Of the 217 traders who mentioned they did not benefit from credit, 61 per cent mentioned that they did not need credit while 8 per cent mentioned that they needed credit but that they could not get it and a further 10 per cent said that they could get credit but decided against it due

¹⁷ Mohale's Hoek data not included due to lack of data

to high interest rates and high collateral requirements. These figures emphasize lack of access to liquidity affecting some 40 per cent of traders. An issue the report will analyze further in **Section 5.4**.

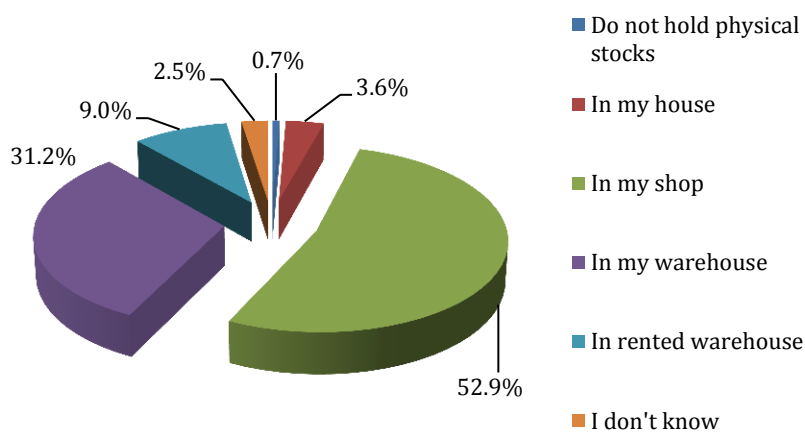
With regard to providing credit, 52 per cent of traders mentioned that there had been an increase in customers' credit request compared to previous years. Moreover only 29 per cent of traders mentioned credit request to be largely in the norm for the time of year, compared to 16.4 per cent that mentioned credit request to have decreased. Traders across the 10 districts reported to have provided on average 19.5 per cent of their January sales in credit. This is further looked into in **Figure 12** which outlines average trader credit provided by district.

Figure 12: Trader credit provided to customers in January 2016 as a per cent of their total sales in January 2016



Source: LVAC Market Assessment

Figure 13: Trader Storage Structure



Source: LVAC Market Assessment

Traders were asked where they kept their food stock irrespective of the storage condition (quality). The survey found that the vast majority (96.7 per cent) were storing their goods in appropriate covered storage facilities in their shops, warehouses, rented warehouses or at home. No trader reported storing food out in the open and only 0.7 per cent of interviewed traders mentioned not stocking any food. This shows that a vast majority of traders have storage capacity (**Figure 13**).

Table 18: Average total storage capacity used by trader type

Trader Type	Average current storage capacity used (per cent)
Wholesalers	28.9
Medium Vendor	18.5
Retailers	22.6

Source: LVAC Market Assessment

However, when looking at how much of the total storage is actually used on a weekly basis, an interesting picture emerged. Across all types of traders, total storage used is at very low levels: 28.9 per cent for wholesalers, 18.5 per cent for medium vendors and 22.6 per cent for retailers (Table 18). This highlights that lack of storage capacity is not an issue for most

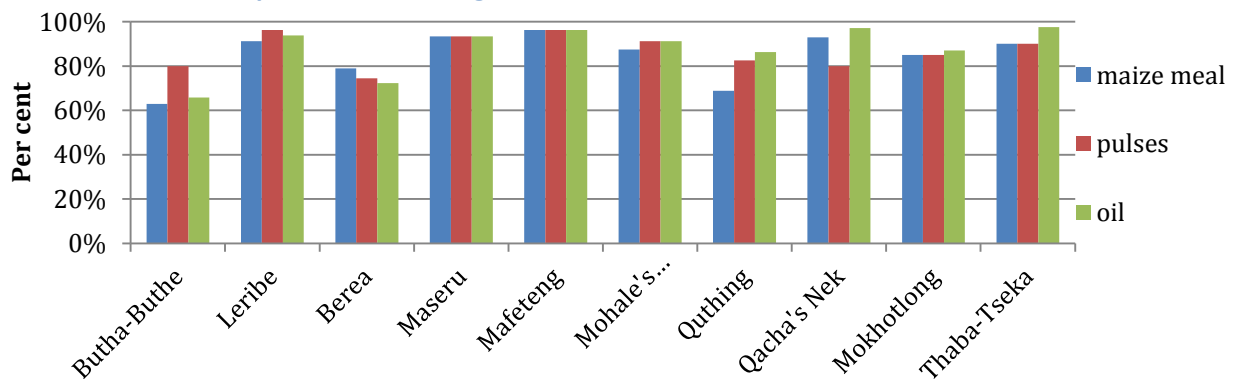
traders as they are operating well below their full storage capacity levels, however it does pose a question as to why they are storing at such low levels especially during the lean season which should be a peak trading season. Section 5.4 identifies customer liquidity as a key factor affecting consumer demand, an issue the section will analyze further.

5.4 Response capacity and constraints

In terms of response capacity to consumer demand, on average 91.2 per cent of traders (all types) across Lesotho claimed that they would be able to meet at least a 50 per cent increase in demand for their trade in maize meal within 2 weeks. When questioned further on meeting a 100 per cent increase (i.e. doubling their trade), this figure only reduced slightly to 85 per cent of traders, showcasing that the majority of traders have no problem accessing extra maize meal in Lesotho. When looking at dried beans this figure was 91.8 per cent of traders able to meet a 50 per cent increase in demand and 87.4 per cent of traders meeting a 100 per cent increase in demand. Regarding cooking oil, 92.8 per cent of traders mentioned to be able to meet a 50 per cent increase in demand while 89.1 per cent of traders reported to be able to meet a 100 per cent increase in demand.

Figure 14 below breaks-down average trader capacity by district to respond to an increase of 100 per cent of demand for maize meal, dry beans and cooking oil. The graph clearly shows that cooking oil and pulses tend to be easier commodities to meet an increase in demand for than maize meal. Furthermore, the districts of Butha-Buthe, Berea and Quthing were districts where fewer traders could meet an increase in trade of 100 per cent, nevertheless, this figure was not lower than 62.9 per cent of traders, indicating strong trader capacity to increase trade volumes in a short timeframe (within 2 weeks).

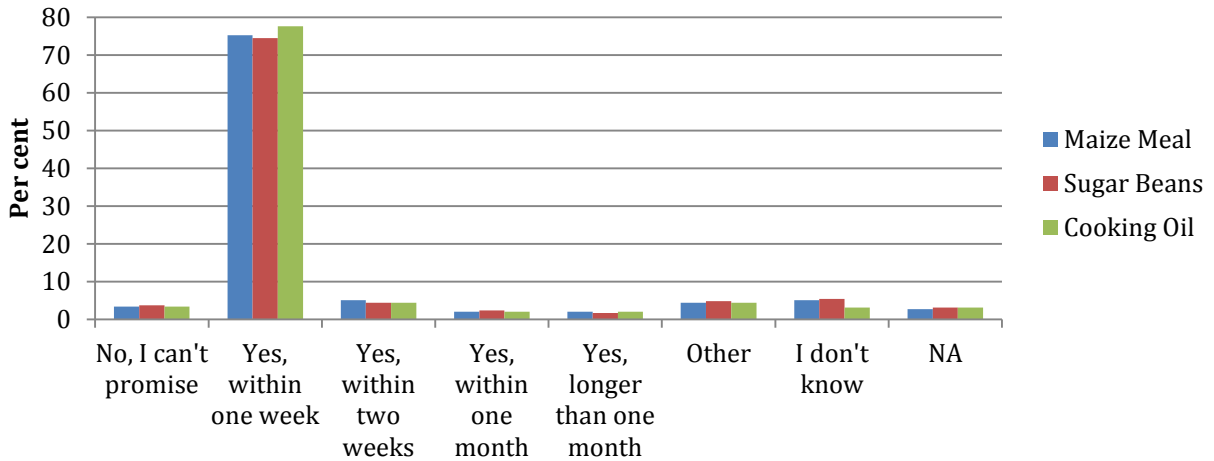
Figure 14: Per cent of traders by district reporting that they can meet demand increases of 100 per cent for maize meal, pulses and cooking oil



Source: LVAC Market Assessment

Traders reported to have well developed supply network systems which allowed them to restock within a matter of days (**Figure 11**, p35). This allowed the traders to confirm short timeframes to meet an increase in demand of 50 per cent. **Figure 15** shows that 75.2 per cent of traders mentioned to be able to meet an increase in demand of maize meal by 50 per cent of their current trade in less than a week. This figure was 74.5 per cent for sugar beans and 77.6 per cent for cooking oil.

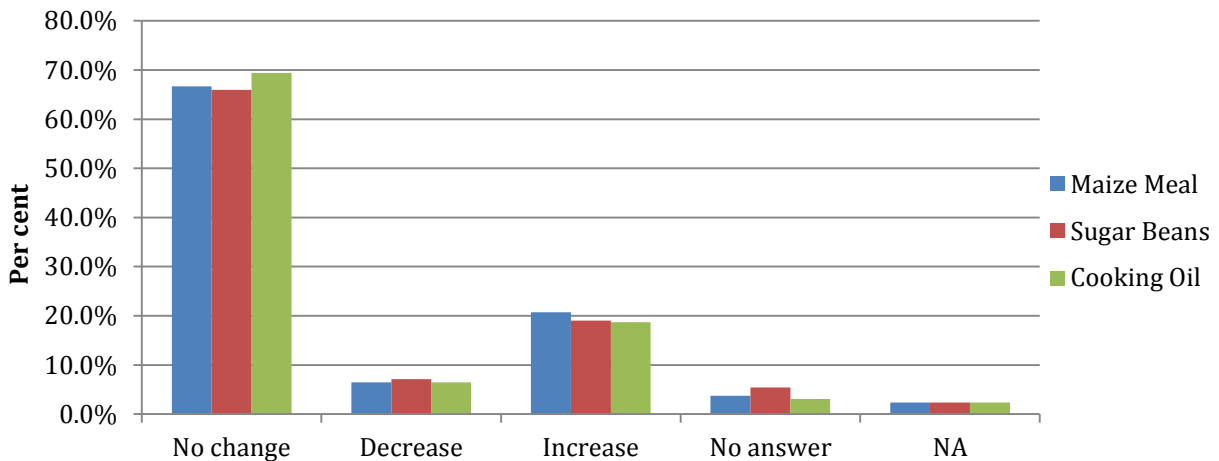
Figure 15: Timeframe to meet an increase in demand of 50 per cent with adequate volume per commodity



Source: LVAC Market Assessment

Relating to price changes as a result of meeting the increase in demand, 66.7 per cent of interviewed traders mentioned that they would not alter their prices as a result of meeting a 25 per cent increase in demand for maize meal. This figure was 66 per cent for sugar beans and 69.4 per cent for cooking oil, highlighting stable prices (**Figure 16**).

Figure 16: Price trend related to a 25 per cent increase in demand

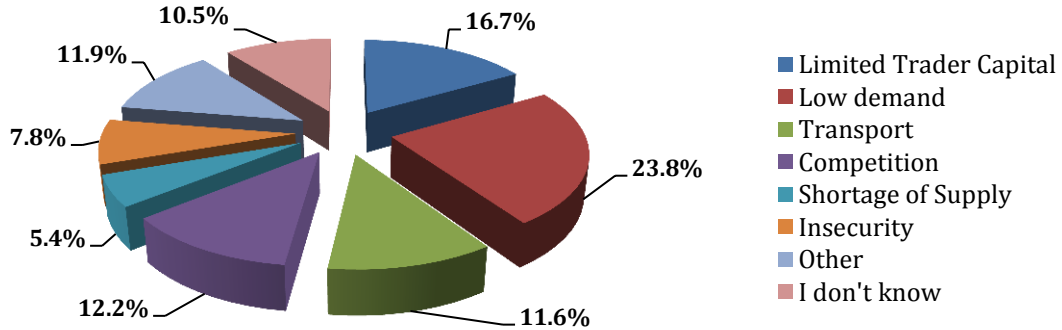


Source: LVAC Market Assessment

The main barriers preventing traders from increasing trade were found to be: high levels of competition between traders (affecting 12.2 per cent of traders), credit limitations (some 16.7 per cent of traders nationally mentioned that lack of credit, lack of own capital, high collateral and high tax were important

constraints for them) and 11.6 per cent also mentioned bad roads and lack of transport. The most important factor, with 23.8 per cent of traders reporting it as a constraint, was consumers’ lack of liquidity (low demand) which was affecting the traders’ business growth (Figure 17). These four main barriers affected approximately two thirds (64.3 per cent) of traders. Insecurity was also high with close to 8 per cent of traders mentioning that theft was a problem.

Figure 17: Main reported trader constraints

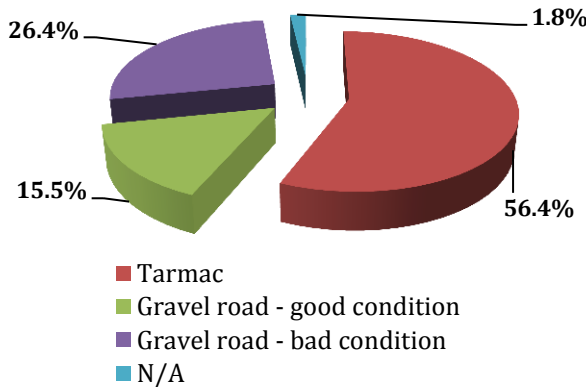


Source: LVAC Market Assessment

Section 6: Households’ Access to Markets

Households’ physical access to a market is an important precondition for market functionality.

Figure 18: Market Source Road Type



Regarding road type 71.9 per cent of market source roads were reported to be in good condition. Of these 56.4 per cent were tarmacked and 15.5 per cent were good quality gravel roads. About 26.4 per cent of the assessed markets were accessed via bad gravel roads which can cause transport delays during heavy rains (Figure 18).

Source: LVAC Market Assessment

When looking closer at road type and viability by district (Table 19) it is possible to identify a handful of districts where accessibility to markets may be an issue. These tend to be the more mountainous districts which are linked with gravel roads in bad condition, notably: Butha-Buthe (71.4 per cent), Thaba-Tseka (62.5 per cent), Leribe (50 per cent), Qacha’s Nek (42.9 per cent), Mokhotlong (40 per cent) and Mohale’s Hoek (37.5 per cent).

Table 19: Per cent of market source road type by District

	Butha-Buthe	Leribe	Berea	Maseru	Mafeteng	Mohale's Hoek	Quthing	Qacha's Nek	Mokhotlong	Thaba-Tseka
Tarmac	28.6	25	77.8	100	75	50	50	28.6	40	0
Gravel road - good condition	0	25	22.2	0	25	12.5	37.5	28.6	20	12.5
Gravel road - bad condition	71.4	50	0	0	0	37.5	12.5	42.9	40	62.5
I don't know	0	0	0	0	0	0	0	0	0	25

Source: LVAC Market Assessment

Table 20: Furthest average walking distance from the market back district (km)

District	Kms
Butha-Buthe	17.5
Leribe	8.8
Berea	16.5
Maseru	12
Mafeteng	16.6
Mohale's Hoek	22.3
Quthing	33.8
Qacha's Nek	21.4
Mokhotlong	13.8
Thaba-Tseka	19.7

Source: LVAC Market Assessment

Table 20 outlines the furthest average walking distance key food security informants mentioned households live from a particular market. The table identifies eight districts where the furthest walking distance is on average above 15kms. This translates to around 3hrs or more by foot at an average speed of 5kms per hour. In Quthing the average furthest walking distance was reported at just below 34kms (7 hours by foot).

Section 7: Conclusions

The market assessment has analysed numerous market components and uncovered a plethora of information. Specifically the assessment has looked at food price trends over time as well as forecasting future price trends. It covered macro-economic and food security analysis. It has looked at trade patterns over time, market interconnectedness as well as traders' ability to expand production to meet demand. It has covered road type and mobile network coverage and has also looked at trader storage capacity and constraints to trade.

The assessment has found that food markets in Lesotho are functioning. Even though in need of maintenance Lesotho has decent infrastructure (roads, mobile networks, storage facilities) which facilitates and catalyzes trade across districts as well as across borders. The ability of most, if not all, traders across the country, to procure food within two days throughout the year demonstrates good market functionality and food supply chains in the country. The single most important trader constraint mentioned was limited consumer liquidity.

Continued further in-depth analysis, such as on collecting robust data on national cereal production levels, monitoring of food prices, monitoring cross-border trade flows and monitoring market functionality and volumes traded throughout the year, can and should be undertaken so as to better understand Lesotho's food markets' evolution over time and likely future trends.

The key question to answer remains availability of adequate food supplies on local markets for the upcoming lean season. With sharp rises in food prices, affordability of maize meal is an important food security issue to consider. Lesotho depends heavily on South Africa for its food security. In fact Lesotho annually imports 70 per cent of its food need requirements from South Africa. For the 2016-17 marketing season cereal imports are expected to increase to around 87.5 per cent (315,000 tonnes out of 360,000 tonnes) of the national cereal requirement, up from 76.5 per cent in 2015-16. Equating to an increase of around 40,000 tonnes compared to 2014/15 figures and an increase of 53,000 tonnes compared to an average year. The fact that Lesotho is surrounded by South Africa though and that the country does not impose VAT on maize meal imports is an important factor in facilitating trade into the country.

Increasing food prices are an important issue to look out for and to monitor closely. Lesotho tends to have stable maize meal prices, varying only by 1.5 per cent from the annual average price level throughout the year. The 2015-16 season though has been riddled with issues, rapidly and uncontrollably pushing-up food commodity prices in 2016. Initial forecasts for the 2016-17 season do not look much better with food prices already at levels well above their five year averages for the time of year and continuing to rise. The fact that Lesotho is a net importer of food means that the country is a 'price taker'. In other words, Lesotho will find it very difficult to control food price increases from South Africa, its source market.

The 2016-17 marketing season is going to be tougher and longer for many Lesotho households as a direct result of the two consecutive (2014-15 and 2015-16) below average harvests. The country has 57.1 per cent of the population living on or below the national poverty line. These are households who are likely going to suffer the most from any changes in availability or access to food.

Section 8: References

- DAFF, (2016), 'Summer Crops : Revised Area and 3rd Production Forecast (2016)', Department of Agriculture, Forestry and Fisheries, Republic of South Africa, <http://www.daff.gov.za/daffweb3/Home/Crop-Estimates>
- DHS, (2009), 'Lesotho Demographic and Health Survey, 2009', http://dhsprogram.com/pubs/pdf/FR241/FR241%5BNEW_completeHHQst_3March2012%5D.pdf
- DHS, (2014), 'Lesotho Demographic and Health Survey, 2014: Key Indicators Report', DHS, (2014), 'Lesotho Demographic and Health Survey, 2014', http://dhsprogram.com/pubs/pdf/FR241/FR241%5BNEW_completeHHQst_3March2012%5D.pdf
- FAO, (2016), 'Impact of food prices increase among Lesotho's poorest: By how much should the size of the Child Grants Programme be increased to allow the poorest families to manage the food price shock?', http://www.lesothocsa.com/uploads/5/2/0/9/52092147/report_lesotho_cereals_price_increase.pdf
- LVAC (2016a), 'Intervention Modality Selection Report', Lesotho Vulnerability Assessment Committee
- MPI, (2016a), 'Total Remittance Inflows and Outflows', Migration Policy Institute <http://www.migrationpolicy.org/programs/data-hub/charts/total-remittance-inflows-and-outflows?width=1000&height=850&iframe=true>
- MPI, (2016b), Migration Policy Institute, <http://www.migrationpolicy.org/>
- NSDP, (2012), 'National Strategic Development Plan 2012/13 – 2016/17: Growth and Development Strategy', Government of Lesotho, [http://www.gov.ls/documents/NSDP%20FINAL%20PRINT%20VERSION%2013%2001%202013\[1\].pdf](http://www.gov.ls/documents/NSDP%20FINAL%20PRINT%20VERSION%2013%2001%202013[1].pdf)
- Reliefweb (2016), 'El Niño - related Drought - Office of the Resident Coordinator Situation Update No. 02', http://reliefweb.int/sites/reliefweb.int/files/resources/20160220per_cent20Sitper_cent20updateper_cent202per_cent20Lesotho.pdf
- Trading Economics, (2016), 'Currency Exchange Rate', <http://www.tradingeconomics.com/south-africa/currency>
- WB, (2016), 'Migration and Remittances Fact Book, 2016', World Bank, <http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTDECPROSPECTS/0,,contentMDK:21352016~pagePK:64165401~piPK:64165026~theSitePK:476883,00.html>
- WFP, (2011), 'Lesotho Cash & Voucher Market Study: Findings Report', United Nations World Food Programme, http://vam.wfp.org/CountryPage_assessments.aspx?iso3=LSO
- Wiesmann D., et al. (2010), 'A study of dietary patterns, energy intakes and micronutrient adequacy among children under 5 and their caretakers in Thaba-Tseka district, Lesotho to inform food and nutrition security programming'

Section 9: Annexes

Annex 1: Terms of reference

Lesotho Market Analysis for 2015-16 Consumption season

Terms of Reference

Background

The Government of Lesotho has declared a state of drought emergency in December and appealed for food assistance from development partners. The country needs 584 million Maloti (USD 37 million) to implement relief activities outlined in its National Drought Response Plan. Lesotho is experiencing a strong El Niño drought that has caused poor rains from October to December 2015. The drought has disrupted crop production and caused water shortages in most parts of the country. Poor households normally obtain 20-55 per cent of their food from crop production, while other households obtain 40-80 per cent of their food needs. But due to poor performance of livelihood strategies in 2015, coupled with poor agricultural prospects this year, the majority of households are forced to obtain food through purchases. Yet, household purchasing power has been undermined due to lack of seasonal agricultural activities that normally provide a source of food or income for poor households.

According to the findings of 2015 vulnerability assessment by the LVAC, about 464,000 people will experience food insecurity until March 2016, and the lean season started earlier than normal. This year, more than 650,000 people are expected to face food insecurity given the anticipated poor harvest, loss of income sources and increase in food prices. Prices of maize in the neighbouring country, South Africa reached record levels in December. South Africa is already importing the bulk of the bulk of its food this year will significantly increase its food imports resulting in increases in prices. The prices of white maize have more than doubled in December 2015, and increased by 70 per cent for yellow maize. Price increases in South Africa pose a threat to Lesotho market as Lesotho buys its bulk of the food in South Africa.

The country has just completed its rapid assessment on the impact of drought on different sectors. However, the government has already engaged NGOs, UN agencies and Development partners to assist the country. Different organizations are seeking funds in preparation in order to respond to the emergency situation. Some agencies have already indicated that they will provide cash based interventions to address the needs of the population during the crisis situation, while also boosting the local economy. One of the requirements of cash-based transfer is to assess whether the markets are functional and have the capacity to respond to increased demand. It is in this context that there is need for a market assessment to advise cash-based interventions which will be led by the LVAC. The following organizations are expected to participate; Lesotho Red cross, Catholic Relief Services, World Vision, UNICEF, FAO and other interested parties.

Objective

The main objective of the Market Assessment is to identify whether from a food supply perspective local markets have the capability to absorb extra demand without negatively affecting the market's food supply and price levels.

General objectives of the assessment are as follows:

- Identify and map the **market structure** (key actors & institutions) and assess the **supply chain** for cereals (maize and maize meal), pulses (cow peas and sugar beans) and vegetable oil;
- Analyse **current and projected availability** of cereals, pulses, cooking oil and other food commodities on local markets;
- Establish the **level of market integration** between source and supply area/s;
- Analyse **market patterns** such as volumes stored and traded, price levels and trends, price setting behaviour, competition and seasonality;
- Analyse the market's **potential or capacity to respond to current and transfer-induced increases in consumer demand**, e.g. storage facilities, stocking levels, stock replenishment lead-time;
- Analyse **demand conditions** such as the vulnerable population's **physical and economic access** to local markets (including inflation patterns of food and non-food commodities, distance from markets and road access to markets, commodity preferences, commodity utilisation, etc.);
- Analyse the overall **market environment** including relevant government policies and regulations, road and transport infrastructure and the socio-political situation;
- Provide **recommendations**, including i) the most appropriate assistance modality for the lean season, for each of the 10 districts, ii) **transfer value** per district and iv) conceivable **scale of support** for either cash/voucher or in-kind based interventions as well as v) how to **address identified bottlenecks** for traders to meet increased demand and strengthen respective supply chains.

Methodology

The WFP Market Analyst will provide technical support for the market assessment. WFP will lead in the facilitation and finalisation of the market assessment with support from LVAC, FAO, UNICEF, World Vision International, Lesotho Red Cross, Catholic Relief Services, other partners and government ministries. The activities will involve reviewing the assessment methodology, tools and facilitation processes. The assessment will be financed by the RVAC, while other agencies including the government will provide logistical support, including provision of enumerators for the assessment and vehicles.

The market assessment methodology and tools will have to be agreed upon by the partners before commencing field data collection. Training on the use of the methodology (to be facilitated by all partners) will be done for the research team before proceeding to the field for data collection. The training will also include piloting of the proposed tools. A data and response analysis workshop will be undertaken at the end of the field data collection to inform the final market assessment and

response analysis report with clear recommendations to the humanitarian response community on the appropriate response modality to be undertaken by district.

Main Deliverables

- Tools and methodology for the assessment developed and accepted by all the partners.
- Training of research team on market assessment tools.
- Coordinate the collection of field level market data by mid-mid-February.
- Facilitate a data analysis session with partners to identify the best intervention modality.
- Produce a set of graphs, maps and tables which can be used to present preliminary results to the Lesotho Government by mid-March.
- Produce a market assessment report summarising the main findings from the secondary and primary data analyses, highlighting clear recommendations on the most appropriate food security response interventions per district.

Timeframe

The assignment in the country is planned for a maximum of 33 days (from discussions on methodology to presentation of the results. This will cover the period from 15th February to 18th March 2016. The write-up of the report will happen remotely after the 18th March and the final report will be submitted by 31st March 2016.

An indicative schedule of activities is outlined in table below. Further reviewing may be considered to accommodate the proposed planning with the effective data collection and cleaning timing.

Table 1: Tentative Timeframe of the implementation of the Market Assessment

Key Activities	15-19 Feb	22-26 Feb	29 Feb-11 Mar	12-18 Mar	18 Mar	After 18th Mar	28-31 Mar	31 Mar
1. Background literature review (continuous)								
2. Agreeing on methodology and Tools								
3. Training data collection team								
4. Data collection								
5. Analysis of preliminary data & agreement with partners on modality selection by district								
6. Presentation of preliminary results to Government / UN/ NGOs								
7. Writing of draft report								
8. Review comments on draft report								
9. Market Assessment Report final release								



Annex 2: Questionnaire

LESOTHO TRADER ASSESSMENT QUESTIONNAIRE – FEBRUARY 2016

SECTION I. PRELIMINARY					
COMPLETE BEFORE THE INTERVIEW	COMPLETE UPON DATA ENTRY				
I.1a Interviewer Name	<table border="1"> <tr> <td colspan="2"> _ _ / _ _ /2016</td> </tr> <tr> <td>Day</td> <td>Month</td> </tr> </table>	_ _ / _ _ /2016		Day	Month
_ _ / _ _ /2016					
Day	Month				
I.1b Team Leader Name	Data Clerk Name:				
I.2 Date					
	Questionnaire Number: _ _ _ _				
I.3 District Code:	District codes				
I.4 Market Name:	01 = Butha-Buthe	06= Mohale's Hoek			
I.5 Village Number:	02 = Leribe	07= Quthing			
GPS Coordinates:		03= Berea	08=Qacha's Nek		
I.6 Y-coordinate (latitude)	S: _ _ _ , _ _ _ _ _ _ _ _	04= Maseru	09= Mokhotlong		
I.7 X-coordinate (longitude)	E0: _ _ _ , _ _ _ _ _ _ _ _	05 = Mafeteng	10= Thaba-Tseka		

INTRODUCTION					
Please read the following consent form:					
<p>My name is _____ I am part of a team of LVAC that is conducting a survey on food markets in Lesotho. I would like to ask you a few questions about food markets, which will take about one hour. Your name will not be recorded and any private information that you provide will be confidential and will not be disclosed to other people. Your participation is voluntary and you can choose not to answer any or all of the questions, if you wish to do so, however we hope that you will participate since your views are important to us.</p>					
I.9 Do you have any questions?					
I.10 May I begin?	<table border="1"> <tr> <td>Yes</td> <td> _ _ </td> <td>No</td> <td> _ _ </td> </tr> </table>	Yes	_ _	No	_ _
Yes	_ _	No	_ _		

District Name	Code
Butha-Buthe	
Leribe	
Berea	
Maseru	

District Name	Code
Mafeteng	
Mohale's Hoek	
Quthing	
Qacha's Nek	

District Name	Code
Mokhotlong	
Thaba-Tseka	
Neighbour – South Africa	

SECTION 2: TRADER CHARACTERISTICS						
2.1	What activity are you involved in? (insert the appropriate number in the space provided)	<input type="text"/>				1. Wholesaler: Purchasing from producers and traders at their store or at farm gate, selling to processors/ traders, using wholesale units
		<input type="text"/>				2. Supermarket: Purchasing from producers and traders, selling to other traders and/or consumers, using both retail and wholesale units
		<input type="text"/>				3. Retailer/small shop owner: Purchasing from traders/producers, selling to ultimate consumers
2.2	How many days a week does this market operate?	1. Daily	<input type="text"/>	4. Once a week	<input type="text"/>	
		2. Every other day	<input type="text"/>	77. Other: _____		
		3. Twice a week	<input type="text"/>	99. I don't know	<input type="text"/>	
2.3	To the best of your knowledge, provide an estimate of the number of traders per commodity in the market who operated in the same activity level as you do?			a. Oct – March (2014-15)	b. May – Aug (2015)	
		Maize Grain	<input type="text"/>	<input type="text"/>	<input type="text"/>	
		Maize Meal	<input type="text"/>	<input type="text"/>	<input type="text"/>	
		Pulses	<input type="text"/>	<input type="text"/>	<input type="text"/>	
		Cooking Oil	<input type="text"/>	<input type="text"/>	<input type="text"/>	
2.4	To the best of your knowledge, provide an estimate of the current and future projected number of traders per commodity in the market operating at the same activity level as you do?			a. Oct – March (2015-16)	b. May – Aug (2016)	
		Maize Grain	<input type="text"/>	<input type="text"/>	<input type="text"/>	
		Maize Meal	<input type="text"/>	<input type="text"/>	<input type="text"/>	
		Pulses	<input type="text"/>	<input type="text"/>	<input type="text"/>	
		Cooking Oil	<input type="text"/>	<input type="text"/>	<input type="text"/>	
2.5	Please indicate the most important food commodity you normally sell in terms of volume per food category?	1. Local / national Maize		2. Imported Maize		
		3. Maize Meal imported (int. origin)		4. Rice		
		5. Maize Meal local millers		6. Sorghum		
		7. Maize meal Imported maize		8. Beans		
		9. Imported Vegetable oil		10. Peas		
		88. Not applicable		11. Wheat		
	Grain	<input type="text"/>	Maize Meal	<input type="text"/>	77. Other:	
Pulses	<input type="text"/>	Cooking Oil	<input type="text"/>			
2.6	When did you start your current business?	<input type="text"/>		1. Less than one year ago	2. Between 1-5 years ago	
		<input type="text"/>		3. More than 5 years ago	99. I don't know	

2.7	Do you sell your produce throughout the year?	<input type="checkbox"/>	1. Yes	2. No (seasonal seller)
2.8	Trader gender	<input type="checkbox"/>	1. Male	2. Female

SECTION 3: FLOW OF COMMODITIES					
3.1	Please provide an estimate of the average quantities (mt) purchased, to be purchased, sold and to be sold per WEEK of the two most important commodities per category (see 2.5)	Purchased/to be purchased		a. Oct – March (2015-16)	b. May – Aug (2016)
		3.1.1	Grain	<input type="checkbox"/>	<input type="checkbox"/>
3.1.2	Maize Meal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.1.3	Pulses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.1.4	Cooking Oil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Sold/to be sold		a. Oct – March (2015-16)	b. May – Aug (2016)
3.1.5	Grain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.1.6	Maize Meal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.1.7	Pulses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.1.8	Cooking Oil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.2	How often do you restock during the different seasons of the year (number)	3.2.1	Grain	<input type="checkbox"/>	<input type="checkbox"/>
		3.2.2	Maize Meal	<input type="checkbox"/>	<input type="checkbox"/>
		3.2.3	Pulses	<input type="checkbox"/>	<input type="checkbox"/>
		3.2.4	Cooking Oil	<input type="checkbox"/>	<input type="checkbox"/>
3.3	How long does it take to get commodities restocked from main sources? (DAYS)	3.3.1	Grain	<input type="checkbox"/>	<input type="checkbox"/>
		3.3.2	Maize Meal	<input type="checkbox"/>	<input type="checkbox"/>
		3.3.3	Pulses	<input type="checkbox"/>	<input type="checkbox"/>
		3.3.4	Cooking Oil	<input type="checkbox"/>	<input type="checkbox"/>
3.4	Please could you tell me the volume of purchase in a typical restocking trip by season (mt)?	3.4.1	Grain	<input type="checkbox"/>	<input type="checkbox"/>
		3.4.2	Maize Meal	<input type="checkbox"/>	<input type="checkbox"/>
		3.4.3	Pulses	<input type="checkbox"/>	<input type="checkbox"/>
		3.4.4	Cooking Oil	<input type="checkbox"/>	<input type="checkbox"/>

LESOTHO VULNERABILITY ASSESSMENT COMMITTEE

3.5	Please indicate if your sales volume in this period (Oct. – March 2015-16) has increased, decreased or remained the same as compared to the an average year?		1. Increased markedly (> 50%)	2. Increased moderately (21%-49%)	
			3. Increased slightly (6%-20%)	4. No change (+5% to - 5%)	
			5. Decreased markedly (> 50%)	6. Decreased moderately (21% -49%)	
			7. Decreased slightly (6%-20%)	99. I don't know	
	Grain	<input type="checkbox"/>	Maize Meal	<input type="checkbox"/>	88. Not applicable
	Pulses	<input type="checkbox"/>	Cooking Oil	<input type="checkbox"/>	77. Other: _____
3.6	If there was a change in sales volume (if you answered 1, 2, 3, 5, 6, 7 to Q3.5), please provide the two most important reasons for this change?	1. Better production within the district	2. More production from other districts		
		3. Less humanitarian food aid distributed	4. Fewer trades/producers selling the same commodity		
		5. More buyers from other districts	6. More capital available for trade		
		7. Improved road infrastructures	8. Better inflows from neighbouring country		
		9. Low production within the district	10. Less production in other district(s)		
		11. More traders/producers selling the same commodity	12. More humanitarian food aid distributed		
		13. Reduced demand from consumers	14. Less capital available for trade		
		15. Deteriorated road infrastructure	16. Less inflows from neighbouring country		
	If No changes, insert "88" in the space provided	77. Other: (specify _____)	88. Not applicable		
1st reason <input type="checkbox"/>		2nd reason <input type="checkbox"/>			
3.7	Where has been the source market or location of the most important commodities during the different seasons of a typical year?		a. Oct – March (2014-15)	b. May – Aug (2015)	
		3.7.1	Grain	<input type="text"/>	<input type="text"/>
		3.7.2	District (use code)	<input type="text"/>	<input type="text"/>
		3.7.3	Distance	<input type="text"/> km	<input type="text"/> km
		3.7.4	Maize Meal	<input type="text"/>	<input type="text"/>
		3.7.5	District (use code)	<input type="text"/>	<input type="text"/>
		3.7.6	Distance	<input type="text"/> km	<input type="text"/> km
		3.7.7	Pulses	<input type="text"/>	<input type="text"/>
		3.7.8	District (use code)	<input type="text"/>	<input type="text"/>
		3.7.9	Distance	<input type="text"/> km	<input type="text"/> km
		3.7.10	Cooking Oil	<input type="text"/>	<input type="text"/>

LESOTHO VULNERABILITY ASSESSMENT COMMITTEE

		3.7.11	District (use code)	<input type="text"/>	<input type="text"/>		
		3.7.12	Distance	<input type="text"/> km	<input type="text"/> km		
3.8	Where has been/will be the source market or location of the most important commodities during the different seasons of the year			a. Oct – March (2015-16)	b. May – Aug (2016)		
		3.8.1	Grain	<input type="text"/>	<input type="text"/>		
		3.8.2	District (use code)	<input type="text"/>	<input type="text"/>		
		3.8.3	Maize Meal	<input type="text"/>	<input type="text"/>		
		3.8.4	District (use code)	<input type="text"/>	<input type="text"/>		
		3.8.5	Pulses	<input type="text"/>	<input type="text"/>		
		3.8.6	District (use code)	<input type="text"/>	<input type="text"/>		
		3.8.7	Cooking Oil	<input type="text"/>	<input type="text"/>		
		3.8.8	District (use code)	<input type="text"/>	<input type="text"/>		
3.9.1	Is your main source for the commodities in Oct-March 2015-16 (see 3.8) different compared to Oct-March 2014-15 (see 3.7)?	1.Yes	2.No	<input type="text"/>			
3.9.2	If yes, please provide the two most important reasons for this change and rank by importance	1. Better production within the district		2. Poor production within the district			
		3. More production from other districts		4. Less production from other districts			
		5. Lower purchase price at previous source		6. Higher purchase price at previous sources			
		7. More institutional procurement at previous source		8. Less institutional procurement at previous source			
		9. More effective demand from other district		10. Less effective demand from other districts			
		11. More supply from other districts and/or neighboring country		12. More demand from consumers			
		13. Improved road infrastructure		14. Deteriorated road infrastructure			
		77. Other (Specify _____)					
		88. Not applicable					

3.10	Is your main source for the commodities in May -Aug 2016 (see 3.8) different compared to May-Aug 2015 (see 3.7)	1.Yes	2.No	__
3.10.1	If yes, please provide the two most important reasons for this change and rank by importance	1. Better production within the district		2. Poor production within the district
		3. More production from other districts		4. Less production from other districts
		5. Lower purchase price at previous source		6. Higher purchase price at previous sources
		7. More institutional procurement at previous source		8. Less institutional procurement at previous source
		9. More effective demand from other district		10. Less effective demand from other districts
		11. More supply from other districts and/or neighboring country		12. More demand from consumers
		13. Improved road infrastructure		14. Deteriorated road infrastructure
		77. Other (Specify _____)		
		88. Not applicable		
		a) 1 st Reason __		b) 2 nd Reason __
3.11	From whom do you buy the commodities at source markets	Grain	__	1. Producers 2. Assemblers 3. Big and medium vendors 4. Retailers 5. Processors 6. Supplied at selling point 7. Supermarkets 88. NA 77. Other: _____
		Maize Meal	__	
		Pulses	__	
		Cooking Oil	__	
3.12	To whom are you primarily selling the commodities traded to by season (Fill out codes below 3.14.1-3.14.8)	1. Traders within the district		2. Traders outside the district but within the country
		3. Traders in other countries (formal trade)		4. Traders in other countries (informal)
		5. Local consumers		6. Processors and institutions
		88. Not applicable		99. I don't know
		77. Other: (specify) _____		

LESOTHO VULNERABILITY ASSESSMENT COMMITTEE

	Commodity	a. Oct – March (2014-15)	b. May – Aug (2015)
3.12.1	Grain	<input type="checkbox"/>	<input type="checkbox"/>
3.12.2	Maize Meal	<input type="checkbox"/>	<input type="checkbox"/>
3.12.3	Pulses	<input type="checkbox"/>	<input type="checkbox"/>
3.12.4	Cooking Oil	<input type="checkbox"/>	<input type="checkbox"/>
	Commodity	a. Oct – March (2015-16)	b. May – Aug (2016)
3.12.5	Grain	<input type="checkbox"/>	<input type="checkbox"/>
3.12.6	Maize Meal	<input type="checkbox"/>	<input type="checkbox"/>
3.12.7	Pulses	<input type="checkbox"/>	<input type="checkbox"/>
3.12.8	Cooking Oil	<input type="checkbox"/>	<input type="checkbox"/>

SECTION 4: RESPONSE CAPACITY AND CONSTRAINTS										
4.1	According to your opinion, would the sale PRICE of the commodities increase, decrease or remain the same if DEMAND in this market would increase by 25%				Grain	<input type="checkbox"/>	1. No change 2. Decrease 3. Increase 99. No answer			
					Maize Meal	<input type="checkbox"/>				
					Pulses	<input type="checkbox"/>				
					Cooking Oil	<input type="checkbox"/>				
4.2	If you expect an INCREASE of PRICE , do you think it would be temporary (until supply increases), or sustain (for the period of DEMAND increases)				Grain	<input type="checkbox"/>	1. Temporary 2. Sustained 88. Not applicable 99. I don't know			
					Maize Meal	<input type="checkbox"/>				
					Pulses	<input type="checkbox"/>				
					Cooking Oil	<input type="checkbox"/>				
4.3	Would you be able to absorb (no price inflation) an increased demand of :		Yes				No			
			Grain	Maize Meal	Pulses	Cooking Oil	Grain	Maize Meal	Pulses	Cooking Oil
	4.3.1	Up to 10%	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	4.3.2	Up to 25%	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	4.3.3	Up to 50%	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.3.4	Up to 100%	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.4	Assume that demand from your customers for each commodity would increase by 50%, within what time frame would you deliver?		Grain		<input type="checkbox"/>	1. No, I can't promise		2. Yes, within one week		
			Maize Meal		<input type="checkbox"/>	3. Yes, within two weeks		4. Yes within one month		
			Pulses		<input type="checkbox"/>	5. Yes, longer than one month		99. I don't know		
			Cooking Oil		<input type="checkbox"/>	77. Other: _____		88. NA		

4.5	What are your three most important constraints?			1. Lack of own capital	2. Lack of credit	3. High collateral requirements
				4. High interest rates on credit	5. High transport cost	6. Lack of means of transport
				7. Poor road infrastructure	8. High tax payment	9. Too much food assistance
				10. Low demand	11. Shortage of supply	12. Few people control the market
				13. Shortage of storage	14. Insecurity	15. Cost of selling license
	a	B	c	16. Seasonal business	17. Theft	99. I don't know
	1 st _	2 nd _	3 rd _	18. Clients' liquidity availability	19. Competition from other wards	
77. Other (specify _____)						
4.6	What are the three most important constraints preventing you to substantially increase (double) the existing business?			1. Lack of own capital	2. Lack of credit	3. High collateral requirements
				4. High interest rates on credit	5. High transport cost	6. Lack of means of transport
				7. Poor road infrastructure	8. High tax payment	9. Too much food assistance
				10. Low demand	11. Shortage of supply	12. Few people control the market
				13. Shortage of storage	14. Insecurity	15. Cost of selling license
	a	b	c	16. Seasonal business	17. Theft	99. I don't know
	1 st _	2 nd _	3 rd _	18. Clients' liquidity availability	19. Competition from other districts	
77. Other (specify _____)						
4.7	Do you believe there would be any security issues if cash was provided to beneficiaries in this district to buy food on the market?			a) Yes	b) No	c) If yes, please explain:
				_	_	

SECTION 5: CREDIT AND STOCK STRATEGY				
5.1	Do you provide credit to some of your customers? If no, skip 5.1.1, 5.1.2 and 5.1.3 and move to 5.2	<input type="checkbox"/>	1. Yes	2. No
5.1.1	If yes (Q5.1), what share of your total sales for last month was on credit?	<input type="checkbox"/> <input type="checkbox"/> %		
5.1.2	If yes (Q5.1), in which period of the year is your total sales on credit the highest?	Jan-March	<input type="checkbox"/>	Apr-Jun
		July- Sep	<input type="checkbox"/>	Oct-Dec
5.1.3	Compared to the usual trend during this period, have there been any changes in the number of people who have been requesting credit?	<input type="checkbox"/>	1. Yes, more people	2. Yes, less people
			3. No, the same number	99. No answer
5.2	In the last two years, have you received credit to run your business?	<input type="checkbox"/>	1. Yes	2. No
5.2.1	If no what were the two main reasons?	1st	<input type="checkbox"/>	1. No need for credit
		2nd	<input type="checkbox"/>	77. Other (specify): _____
5.2.2	If yes (Q5.2), from which source did you receive credit?	<input type="checkbox"/>	1. Grain traders, vendors	2. Formal finance institution
			4. Rural micro-finance	5. Mobile traders
			3. Informal money lender	
			6. Relatives and friends	
			77. Other (specify): _____	
5.3	Do you own a bank account in one of the formal banks?	<input type="checkbox"/>	1. Yes	2. No
5.4a	Do you use mobile money as a saving service?	<input type="checkbox"/>	1. Yes	2. No
5.4b	If yes to 5.4a, what mobile money /e-money service do you use?	Mobile money provider		1. Yes
		Ecocash		<input type="checkbox"/>
		Mpesa		<input type="checkbox"/>
		Other:		<input type="checkbox"/>
			2. No	99. I don't know
			99. I don't know	

LESOTHO VULNERABILITY ASSESSMENT COMMITTEE

5.5	Please grade the quality of service provider network in the district	Cellphone network provider		Good reception	Average reception	Poor (intermittent/ no reception)
		ECONET		<input type="text"/>	<input type="text"/>	<input type="text"/>
		VODACOM		<input type="text"/>	<input type="text"/>	<input type="text"/>
5.6	Where do you stock your commodities? <input type="text"/>	1. No stocks (do not hold physical stock)			2. In my house	3. In my shop
		4. In my warehouse			5. In rented warehouse	6. In open space
		77. Other (specify _____)				99. I don't know
5.7	What is the total capacity of your storage? (ask to see storage space if possible)		<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> mt			
5.8	What is your current stock level of your commodities?	5.8.1	Grain	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> mt		
		5.8.2	Millie Meal	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> mt		
		5.8.3	Pulses	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> mt		
		5.8.4	Cooking Oil	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> mt		
5.9	How do you rate the current market supply of the staple food commodities as compared to a typical year?	5.9.1	Grain	<input type="text"/>	1. Above normal	2. Normal
		5.9.2	Millie Meal	<input type="text"/>		
		5.9.3	Pulses	<input type="text"/>	3. Below normal	99. I don't know
		5.9.4	Cooking Oil	<input type="text"/>		
5.10	In your opinion, do you think that the current local production and stock owned by traders in this market is sufficient to meet the demand of consumers in the coming March – Aug 2016? Please answer by commodity	5.10.1	Grain	<input type="text"/>	1. Yes, local production is sufficient to meet the needs	
		5.10.2	Maize Meal	<input type="text"/>	2. No, supply from other markets will be required during the end of the lean season	
		5.10.3	Pulses	<input type="text"/>	99. I don't know what will happen	
		5.10.4	Cooking Oil	<input type="text"/>	77. Other: _____	

SECTION 6: PRICES						
6.1	How are the retail selling prices of the listed commodities (on the right) determined in this market?	6.1.1	Grain	_ _	1. Prices are fixed by the Government	
					2. Prices are fixed by big vendors on the market	
		6.1.2	Maize Meal	_ _	3. All traders set prices at the start of the market day	
					4. Prices are fixed by wholesalers outside the market	
		6.1.3	Pulses	_ _	5. Prices are fixed by the traders association before the market begins	
					6. Each trader determines his/her own price	
		6.1.4	Cooking oil	_ _	7. Prices are fixed by negotiation between buyer and seller	
					99. I don't know	
77. Other: (specify _____)						
6.2	What is the current purchasing price of a unit for each of the four listed commodities?	6.2.1a	Grain	_ _	One unit = _____ KG	
					6.2.1b	_ _ _ _ _ _ _ _ _ _ LOTI
		6.2.2a	Maize Meal	_ _	_ _	One unit = _____ KG
						6.2.2b
		6.2.3a	Pulses	_ _	_ _	One unit = _____ KG
						6.2.3b
		6.2.4a	Cooking Oil	_ _	_ _	One unit = _____ L / cl
						6.2.4b
6.3	What is the current selling price of a unit for each of the four listed commodities?	6.3.1a	Grain	_ _	One unit = _____ KG	
					6.3.1b	_ _ _ _ _ _ _ _ _ _ LOTI
		6.3.2a	Maize Meal	_ _	_ _	One unit = _____ KG
						6.3.2b
		6.3.3a	Pulses	_ _	_ _	One unit = _____ KG
						6.3.3b
		6.3.4a	Cooking Oil	_ _	_ _	One unit = _____ L / cl
						6.3.4b

6.4	What do you expect the price of a unit to be for each of the four listed commodities in the months of:	6.4.1a	Grain	One unit = _____ KG
		6.4.1b		March 16 __ __ __ __ __ LOTI
		6.4.1c		Aug 16 __ __ __ __ __ LOTI
		6.4.1d		Dec 16 __ __ __ __ __ LOTI
		6.4.2a	Maize Meal	One unit = _____ KG
		6.4.2b		March 16 __ __ __ __ __ LOTI
		6.4.2c		Aug 16 __ __ __ __ __ LOTI
		6.4.2d		Dec 16 __ __ __ __ __ LOTI
		6.4.3a	Pulses	One unit = _____ KG
		6.4.3b		March 16 __ __ __ __ __ LOTI
		6.4.3c		Aug 16 __ __ __ __ __ LOTI
		6.4.3d		Dec 16 __ __ __ __ __ LOTI
		6.4.4a	Cooking Oil	One unit = _____ KG
		6.4.4b		March 16 __ __ __ __ __ LOTI
		6.4.4c		Aug 16 __ __ __ __ __ LOTI
		6.4.4d		Dec 16 __ __ __ __ __ LOTI

SECTION 7: Write down any questions the trader may have

SECTION 8: OBSERVATIONS during market visit which are not captured by the Questionnaire

Thank You for your kind cooperation

Annex 3 – Assessment Methodology

The market assessment covered all of the country's 10 districts, all of which had been identified by a prior LVAC food security assessment to be highly food insecure for the 2016/17 consumption season. The assessment employed both secondary and primary data sources to meet the stated objectives (see section 2.1) and to identify suitable markets for market based response options. Primary data was collected using structured trader, agriculture inputs and market key informant questionnaires.

The key informant questionnaire was undertaken at district level with key district food security actors such as: the District Administrator, District Agricultural Officers, NGOs and UN food security representatives in the district, Marketing Officers (Ministry of Small Business Development Cooperatives & Marketing), DMA (Disaster Management Authority) and representatives from the BoS. The key informant interviews were essential in identifying the key markets that the food insecure households in the affected districts were using, and would use, to buy their daily food commodities from in 2016-17. The criteria used to identify the key markets were that: 1) at least 25 per cent of the customers using the market for their daily/weekly food requirements were from the most food insecure population in the district, and 2) that the selected markets were operational all year round hereby allowing to use these markets for food security interventions.

Once the key markets were identified, the assessment team ventured to the markets to conduct the trader and agriculture inputs questionnaires. The trader questionnaire targeted traders who sold one or more of the following commodities: grain (few traders sold maize grain), maize meal, pulses (sugar beans), and vegetable cooking oil. The trader questionnaire made-up the bulk of the market assessment data. The agriculture inputs questionnaire was delivered in the same market as the trader questionnaire but focused on traders who sold agriculture inputs such as cereal and vegetable seeds, livestock drugs and feeds. A separate report by FAO will address the agriculture inputs survey.

Every market served people from the market's district or in the case of a large market or a market which was found on the border with another district, the people the market served were also from additional neighbouring districts. On average eleven key markets were identified per district and two markets were visited by a data collection team every day. While the aim was to cover at least three traders per commodity and by operation level (wholesaler, medium trader and retailer), in reality traders were not so plentiful, especially in rural markets. Wholesalers were seldom found in markets apart from the main district markets serving the entire district and often other districts too. Medium traders were also mostly found in the main district markets. Retail level traders often did not surpass two per market in rural markets.

Prior to the assessment, a two-day training workshop was conducted on: linking markets to food security, food markets and response option; and market assessment tools and analysis. A guideline that explains the tools was prepared, and used to explain concepts and definitions during the training. The guideline was distributed for quick referencing. On the second training day the tools were pre-tested at nearby markets surrounding Maseru and adjustments were made based on feedback from the enumerators.

The field level assessment took place over 7 days (25th of February – 2nd of March 2016). Ten key informant interviews were delivered. Moreover 110 markets from 10 districts were assessed (see **map 2**). From these markets, 15 wholesalers, 90 medium traders and 189 retailers were interviewed using

structured questionnaires for a total of 294 traders interviewed. An additional 49 traders were interviewed using the agriculture inputs questionnaire. The primary data collected at each market was analysed using Excel and SPSS software.

The assessment was conducted by 41 enumerators from eight different organisations: DMA (15), Small Business Development Cooperatives and Marketing (10), Food and Nutrition Coordinating Office (2), Ministry of Agriculture and Food Security (1), Catholic Relief Services (2), Red Cross (3), World Vision International (3), UN Food and Agriculture Organization (2) and UN World Food Programme (3). The enumerators were divided into 10 teams (**table 5**), one per district. Each team was made-up of a mix of 4 enumerators from different agencies: A team leader representing one of the eight organisations collaborating in the assessment, an enumerator from DMA, an enumerator from marketing and another enumerator from either an NGO or UN Agency.

Secondary data and reports were obtained from various sources (DMA, BoS, CRS, WVI, Red Cross, FAO, and WFP). These provided background context analysis as well as strengthening primary data analysis. Before and after data collection stakeholder interviews were conducted with national level market actors such as with representatives from the Ministry of Small Business Development Cooperatives and Marketing, BoS, Lesotho Flour Milling and Lesotho Milling, to support the finalisation of the market assessment tools as well as to guide a more holistic understanding of food market dynamics in Lesotho.



Lesotho Government



Lesotho VAC