1.0 Introduction

Lesotho has been undertaking Agricultural Production Survey (APS) annually since 1973/1974 Agricultural Year. The APS estimates are usually available by the end of October for summer and winter crops. In addition to APS, Bureau of Statistics (BOS) in collaboration with National Early Warning Unit (NEWU) under Disaster Management Authority (DMA) conducts Crop Forecasting Survey (CFS) as early as April every year. The main purpose of the forecasting is to inform the planners and policy makers about the expected crop production in order to make effective decisions concerning availability of food in the country and to make necessary preparations if there is shortage of food.

Crop forecasting is a process of estimating the most likely yield and production of a crop on the basis of known facts at the time of making the forecast. Assumptions used for forecast are based on conditions such as weather and damage by pests. Forecasts assumed that there is no change in production of crops between date of forecasting and final harvest.

It should be noted that crop forecasting is undertaken at the time when wheat is being harvested, therefore, its results will reflect the final production estimates. Normally, the results of maize and sorghum from the CFS, though are subject to larger sampling error, do not differ much from those of the actual APS. The report also includes total availability and utilization of cereals as well as the food balance sheet.

1.1 Uses of Crop forecasts

- Government requires information in advance regarding production as it is an important factor in measuring national income. In countries which are not self sufficient in food like Lesotho, forecasts of local farmers' production are needed to ascertain the quantities of cereals needed in the country for the following agricultural year.
- Can be used by public and the private sectors dealing with agriculture for providing the necessary storage adjustments and for making available credit on the basis of crop prospects or forecasts.
- Production forecasts are essential to inform all users in the forecasting of prices of agricultural inputs and household's food security.

2.0 Sampling procedure and coverage

A stratified multi-stage sampling scheme was adopted for the selection of the sample for the APS. Large enumeration areas constituted Primary Sampling Units (PSUs) and individual agricultural holdings (farming households) constituted Secondary Sampling Units (SSUs) for the estimation of land use, crop areas and livestock population. Fields under maize, sorghum and wheat formed the third sampling unit for the estimation of crop yield. Two sub-plots for crop cutting in each selected field formed the ultimate units for yield estimation. About 100 PSUs in the rural areas that covered about 2,000 farming households were selected. A maximum of five fields, each for maize, sorghum and their mixtures per PSU constituted the sample for the crop forecasting exercise that covered summer season only. Wheat which had already reached its maturity stage at the time of forecasting is included and covers 10 fields following the APS. The PSUs have been selected with probability proportional to size, the size estimate being obtained from the 2006 Population and Housing Census. In each PSU, an average of 20 agricultural households was selected through systematic sampling from a list of all agricultural households.

2.1 Data collection

The crop forecasting exercise for the Agricultural Year 2014/2015 was carried out during the last two weeks of April 2015 throughout the country. Data collection was done by enumerators from BOS. They were closely supervised by the Field Officers, Senior Field Officers, District Statisticians and additional Senior Officers from BOS head office, DMA and Ministry of Agriculture and Food Security headquarters (MAFS) in order to ensure that data was collected following the right procedures and reaches the BOS headquarters on time.

3.0 The Survey Findings

This section presents forecasts of Maize and Sorghum as well as actual Wheat production. Area planted and yield is used to estimate production. Area planted is measured in hectares (ha) and yield is measured in metric tons per hectare (mt/ha). Yield per hectare is considered high when it is in the range of 1.00mt/ha and above, regarded average at 0.50mt/ha and poor when it is below average. The overall area planted to all crops in the country has decreased by 18.8 percent from 213,339ha of the previous year to 173,316 ha. In 2014/2015 Agricultural Year, the estimated overall yield per hectare in subsistence farming for maize, sorghum and wheat is 0.68mt/ha, 0.21mt/ha and 0.79mt/ha respectively. The forecasting estimates are valid until the actual harvesting estimates are released which is normally in late October.

3.1 Maize

Section 3.1 covers area planted, production and yield forecasts for Maize in 2014/2015 Agricultural Year for both subsistence and block farming. Table 1a shows Area Planted, Yield and Production of Maize by District for Subsistence Farming in 2014/2015 Agricultural Year. Total area planted to maize was 111,640ha, showing a decrease of 23.3 percent as compared to 145,665ha of the previous year.

Maize yield per hectare for 2014/2015 was 0.66mt/ha, showing a decrease of 2.9 percent compared to 0.68mt/ha of the previous year. Leribe recorded the highest yield of 1.04mt/ha followed by Botha-Bothe with 0.91mt/ha. The lowest maize yield (0.23mt/ha) was observed in Qacha's Nek.

The table further indicates expected production of 73,740mt; it has decreased by 18.1 percent from 90,072mt of the previous year. The highest maize production of 19, 704mt is expected in Leribe, followed by Maseru with 18,350mt. The lowest maize production is expected in Qacha's Nek (528mt).

Table 1a: Area Planted, Yield and Production of Maize by District for Subsistence Farming, 2014/2015 Agricultural Year

District	Area planted(ha)	Yield(mt/ha)	Production(mt)
Botha-Bothe	4,765	0.91	4,315
Leribe	18,937	1.04	19,704
Berea	13,705	0.67	9,245
Maseru	22,177	0.83	18,350
Mafeteng	19,269	0.40	7,759
Mohale's Hoek	9,671	0.47	4,578
Quthing	4,438	0.37	1,640
Qacha's Nek	2,301	0.23	528
Mokhotlong	6,901	0.68	4,701
Thaba-Tseka	9,475	0.31	2,919
Lesotho	**111,640**	**0.66**	**73,740**

Table 1b shows Area Planted, Yield and Production of Maize by District for Block Farming in 2014/2015 Agricultural Year. The total area planted to maize was 4,137ha. The highest area planted was observed in Leribe (2,067ha), followed by Maseru (867ha). The least area planted to maize was recorded in Mafeteng (13ha).

The overall maize yield per hectare for block farming in 2014/2015 was 1.08mt/ha. The highest yield per hectare was recorded in Maseru (1.33mt/ha) followed by Leribe with 1.21mt/ha. Expected maize production is 4,507mt, the highest production is expected in Leribe (2,507mt) while the lowest production is expected in Mafeteng (4mt).

Table 1b: Area Planted, Yield and Production of Maize by District for Block Farming, 2014/2015 Agricultural Year

District	Area planted(ha)	Yield(mt/ha)	Production(mt)
Botha-Bothe	235	0.81	189
Leribe	2,067	1.21	2,507
Berea	301	0.69	209
Maseru	867	1.33	1,153
Mafeteng	13	0.31	4
Mohale's Hoek	276	0.68	188
Quthing	100	0.94	94
Qacha's Nek	0	0.00	0
Mokhotlong	137	0.25	34
Thaba-Tseka	177	0.73	129
Lesotho	**4,173**	**1.08**	**4,507**

Table 1c portrays total area planted, yield and production of maize by district for both Subsistence and Block Farming in 2014/2015 Agricultural Year. The total area planted to maize in 2014/2015 was 115,813ha. The highest overall area planted to maize was recorded in Maseru (23,043ha) while the lowest area was in Qacha's Nek (2,301ha).

Overall maize yield is 0.68mt/ha. The highest yield was recorded in Leribe (1.06mt/ha) and the lowest was recorded in Qacha's Nek (0.23mt/ha). Expected total production is 78,246mt. Leribe is expected to have the highest production 22,211mt while the lowest production is expected in Qacha's Nek (528mt).

Table 1c: Area Planted, Yield and Production of Maize by District for both Subsistence and Block Farming, 2014/2015 Agricultural Year

District	Area planted (ha)	Yield(mt/ha)	Production(mt)
Botha-Bothe	5,000	0.90	4,505
Leribe	21,004	1.06	22,211
Berea	14,006	0.68	9,454
Maseru	23,043	0.85	19,504
Mafeteng	19,282	0.40	7,763
Mohale's Hoek	9,947	0.48	4,766
Quthing	4,538	0.38	1,734
Qacha's Nek	2,301	0.23	528
Mokhotlong	7,038	0.67	4,734
Thaba-Tseka	9,653	0.32	3,048
Lesotho	**115,813**	**0.68**	**78,246**

3.1.1 Trend of Area Planted to Maize

Area planted to maize for a period of five years (2010/2011 to 2014/2015) is analyzed in this section. Table 2 shows area planted to maize in hectares from 2010/2011 to 2014/2015 Agricultural Years. Area planted to maize has decreased by 23.8 percent from 2013/2014 to 2014/2015 Agricultural Years.

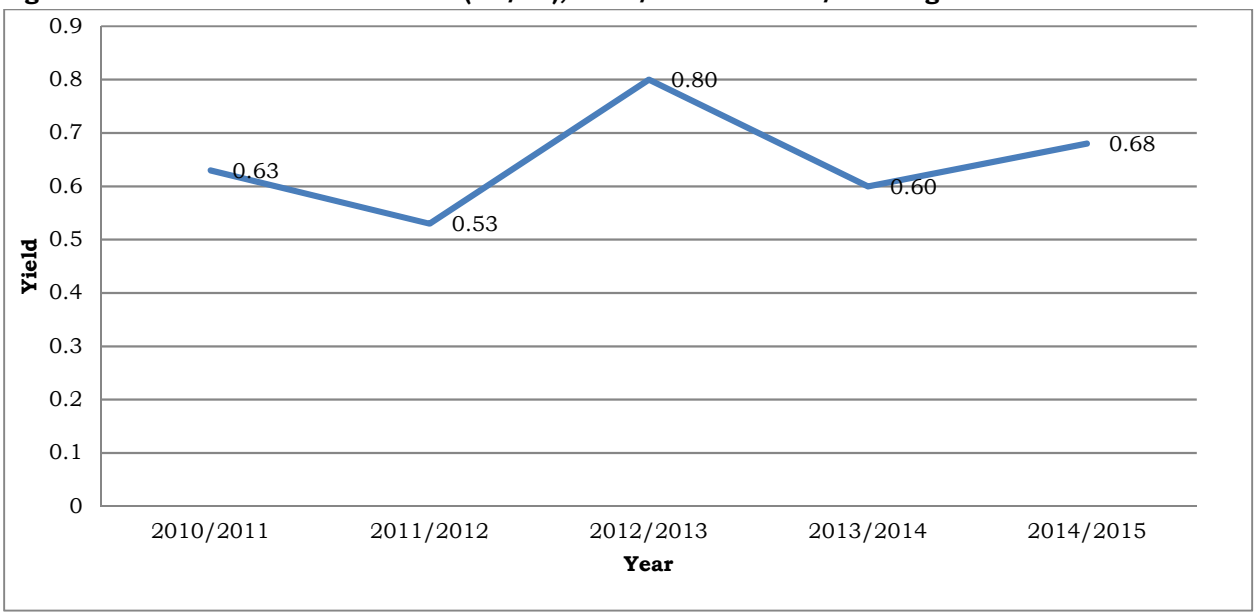
Table 2: Area Planted (ha) to Maize by, 2010/2011 to 2014/2015 Agricultural Years

District	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015
Botha- Bothe	6,327	5,741	5,220	4,230	5,000
Leribe	23,339	14,151	19,947	26,935	21,004
Berea	20,014	10,515	15,735	20,400	14,006
Maseru	24,560	13,839	18,175	21,418	23,043
Mafeteng	26,661	10,961	16,841	22,449	19,282
Mohale's Hoek	16,692	8,306	8,640	18,260	9,947
Quthing	4,933	6,467	6,766	5,610	4,538
Qacha's Nek	7,251	5,010	3,980	2,623	2,301
Mokhotlong	13,109	14,547	9,818	17,277	7,038
Thaba- Tseka	10,461	8,174	9,421	12,730	9,653
Lesotho	**153,348**	**97,711**	**114,543**	**151,930**	**115,813**

3.1.2 Trend of Maize Yield

Maize yield trend for a period of five consecutive years is covered in this section. Figure1 illustrates maize yield per hectare from 2010/2011 to 2014/2015 Agricultural Years. Maize yield has increased by 22.1 percent from 2013/2014 to 2014/2015.

Figure 1: Distribution of Maize Yield (mt/ha), 2010/2011 to 2014/2015 Agricultural Years



3.1.3 Maize Production Trend

Maize production trend is compared for a period of five consecutive years. Table 3 presents actual maize production for Agricultural Years 2010/2011 to 2013/2014 and 2014/2015 forecasts by district. Maize production decreased by 13.6 percent from 2013/2014 to 2014/2015.

Table 3: Maize Production (mt) by District, 2010/2011 to 2013/2014 Agricultural Years and 2014/2015 Forecasts

	Actual				Forecasts
District	**2010/2011**	**2011/2012**	**2012/2013**	**2013/2014**	**2014/2015**
Botha-Bothe	3,870	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
Lesotho	**73,390**	**42,471**	**86,304**	**90,628**	**78,246**

3.2 Sorghum

This section covers area planted, yield and production of sorghum. It also provides information on sorghum trend in relation to area planted, yield and production. Table 4a presents Area Planted, Yield and Production of Sorghum by District for Subsistence Farming in 2014/2015 Agricultural Year. The total area planted to sorghum was estimated at 17,346ha, and had decreased by 28.1 percent from 24,121ha of the previous Agricultural Year. Mohale's Hoek experienced the highest area planted to sorghum of 3,513ha followed by Maseru with 2,787ha. Qacha's Nek experienced the least area planted to sorghum with 265ha.

Sorghum yield in 2014/2015 was 0.21mt/ha, showing a decrease of 53.3 percent compared to that of the previous agricultural year (0.45mt/ha). The district with the highest yield was Botha-Bothe with 0.53mt/ha while Thaba-Tseka experienced the least sorghum yield of 0.08mt/ha.

The expected sorghum production in the country is 3,634mt. It has decreased by 63.1 percent as compared to production in the previous year (9,844mt). Maseru is expected to have the highest sorghum production of 927mt.

Table 4a: Area Planted, Yield and Production of Sorghum by District for Subsistence Farming, 2014/2015 Agricultural Year

District	Area planted(ha)	Yield(mt/ha)	Production(mt)
Botha-Bothe	671	0.53	355
Leribe	2,129	0.27	564
Berea	2,062	0.23	471
Maseru	2,787	0.33	927
Mafeteng	2,379	0.10	240
Mohale's Hoek	3,513	0.15	515
Quthing	1,763	0.16	281
Qacha's Nek	265	0.11	28
Mokhotlong	318	0.42	133
Thaba-Tseka	1,458	0.08	120
Lesotho	**17,346**	**0.21**	**3,634**

Table 4b illustrates Area Planted, Yield and Production of Sorghum by District for Block Farming in 2014/2015 Agricultural Year. The total area planted to Sorghum was 259ha. Sorghum was planted in three districts namely Maseru, Mafeteng and Thaba-Tseka with 111ha, 112ha and 36ha respectively. The overall yield was 0.33mt/ha and the expected production is 85mt.

Table 4b: Area Planted, Yield and Production of Sorghum by District for Block Farming, 2014/2015 Agricultural Year

District	Area planted (ha)	Yield(mt/ha)	Production(mt)
Botha-Bothe	0	0.00	0
Leribe	0	0.00	0
Berea	0	0.00	0
Maseru	0	0.00	0
Mafeteng	111	0.67	75
Mohale's Hoek	0	0.00	0
Quthing	112	0.03	3
Qacha's Nek	0	0.00	0
Mokhotlong	0	0.00	0
Thaba-Tseka	36	0.21	7
Lesotho	**259**	**0.33**	**85**

Table 4c illustrates Area planted, Yield and Production of Sorghum by District for both Subsistence and Block Farming in 2014/2015 Agricultural Year. The total area planted to sorghum was 17,605ha while overall yield and production were 0.21mt/ha and 3,720mt respectively.

Table 4c: Total Area Planted, Yield and Production of Sorghum by District for both Subsistence and Block Farming, 2014/2015 Agricultural Year

District	Area planted(ha)	Yield(mt/ha)	Production(mt)
Botha-Bothe	671	0.53	355
Leribe	2,129	0.27	564
Berea	2,062	0.23	471
Maseru	2,787	0.33	927
Mafeteng	2,491	0.13	315
Mohale's Hoek	3,513	0.15	515
Quthing	1,875	0.15	283
Qacha's Nek	265	0.11	28
Mokhotlong	318	0.42	133
Thaba-Tseka	1,494	0.09	128
Lesotho	**17,605**	**0.21**	**3,720**

3.2.1 Trend of Area Planted to Sorghum

Table 5 shows area planted to sorghum in hectares from 2010/2011 to 2014/2015 Agricultural Years. Area planted decreased by 27.7 percent from 2013/2014 to 2014/2015.

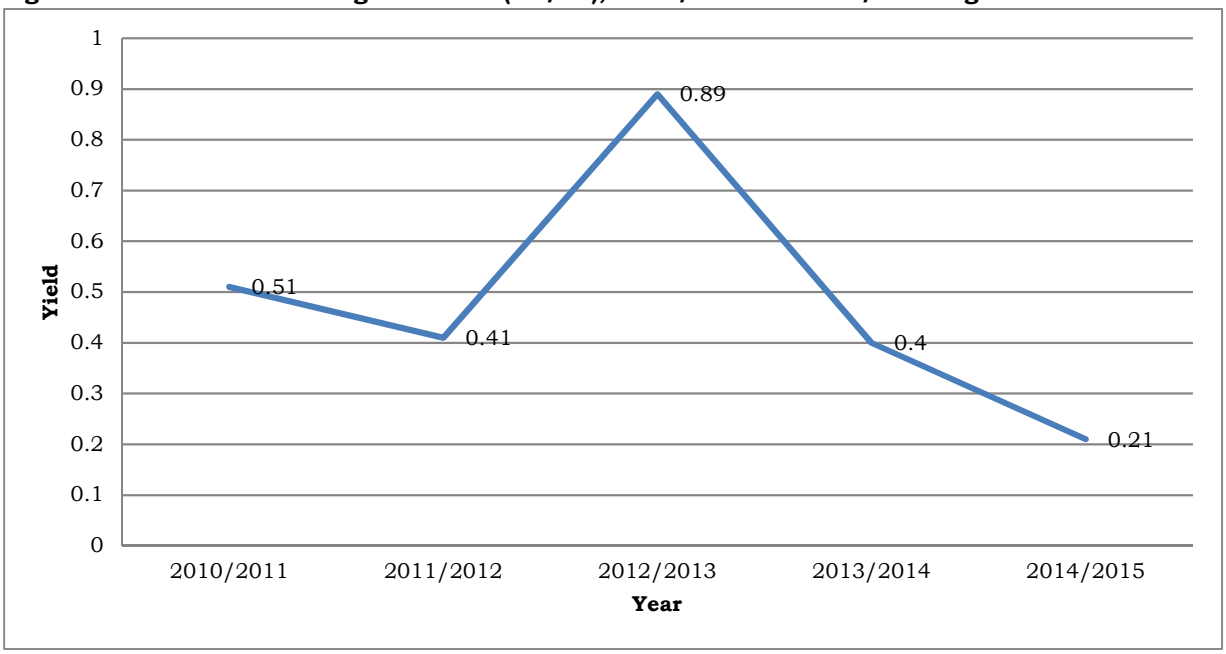
Table 5: Area Planted (ha) to Sorghum by District, 2010/2011 to 2014/2015 Agricultural Years

District	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015
Botha- Bothe	1,113	1,427	1,705	1,195	671
Leribe	4,059	1,694	4,768	3,126	2,129
Berea	3,133	1,698	3,562	4,230	2,062
Maseru	4,352	2,420	3,767	2,871	2,787
Mafeteng	6,434	1,354	2,031	3,512	2,491
Mohale's Hoek	4,044	612	2,538	3,938	3,513
Quthing	1,611	568	2,823	2,699	1,875
Qacha's Nek	923	184	1,029	0	265
Mokhotlong	835	2,823	1,563	1,087	318
Thaba- Tseka	1,791	1,371	874	1,699	1,494
Lesotho	**28,296**	**14,151**	**24,661**	**24,356**	**17,605**

3.2.2 Trend of Sorghum Yield

Figure 2 depicts sorghum yield from 2010/2011 to 2014/2015 Agricultural Years. An increase in Sorghum yield of 117.1 percent was recorded in 2012/2013, since then yield has only been declining, and a decrease of 47.5 percent was observed from 2013/2014 to 2014/2015.

Figure 2: Distribution of Sorghum Yield (mt/ha), 2010/2011 to 2014/2015 Agricultural Years



3.2.3 Sorghum Production Trend

Table 6 illustrates actual sorghum production for Agricultural Years 2010/2011 to 2013/2014 and 2014/2015 forecasts by district. Sorghum production has been declining since 2013/2014, and a decrease of 62.3 percent was observed from 2013/2014 to 2014/2015.

Table 6: Sorghum Production (mt) by District, 2010/2011 to 2013/2014 Agricultural Years and 2014/2015 Forecasts

	Actual				Forecasts
District	**2010/2011**	**2011/2012**	**2012/2013**	**2013/2014**	**2014/2015**
Botha-Bothe	277	798	1,165	381	355
Leribe	1,406	608	2,070	1,548	564
Berea	588	365	2,358	1,916	471
Maseru	1,758	1,066	5,312	989	927
Mafeteng	1,106	200	2,208	1,742	315
Mohale's Hoek	972	229	2,228	1,614	515
Quthing	1,317	107	1,772	830	283
Qacha's Nek	278	36	1,923	0	28
Mokhotlong	699	706	865	326	133
Thaba-Tseka	1,205	559	505	515	128
Lesotho	**9,606**	**4,673**	**20,405**	**9,860**	**3,720**

3.3 Wheat

Area planted, yield and production of wheat for both summer and winter season is covered in this section for 2014/2015 Agricultural year.

Table 7 presents area planted, yield and production of wheat for 2014/2015 Agricultural Year. Area planted to wheat was 8,992ha, showing a decrease of 37.1 percent compared to area planted in the previous Agricultural Year (14,292ha).The highest area planted to wheat was observed in Mokhotlong (2,745ha).

Yield for wheat was 0.79 mt/ha in 2014/2015 Agricultural Year. It has decreased by 10.2 percent compared to 0.88 mt/ha of 2013/2014. Quthing recorded the highest yield of 1.06mt/ha, followed by Mokhotlong with 0.91 mt/ha.

Wheat production was 7,069mt and it declined by 43.8 percent as compared to production in 2013/2014 (12,582mt). Mokhotlong recorded the highest Production (2,511mt).

Table 7: Area Planted, Yield and Production of Wheat by District, 2014/2015 Agricultural Year

District	Area planted(ha)	Yield(mt/ha)	Production(mt)
Botha-Bothe	396	0.57	227
Leribe	1,055	0.81	855
Berea	0	0.00	0
Maseru	729	0.58	422
Mafeteng	320	0.79	252
Mohale's Hoek	589	0.50	294
Quthing	861	1.06	914
Qacha's Nek	637	0.30	192
Mokhotlong	2,745	0.91	2,511
Thaba-Tseka	1,661	0.84	1,403
Lesotho	**8,992**	**0.79**	**7,069**

3.3.1 Trend of Area Planted to Wheat

Table 8 shows area planted to wheat in hectares from 2010/2011 to 2014/2015 Agricultural Years. From 2010/2011 to 2011/2012 area planted to wheat decreased by 37.8 percent and further decreased by 17.7 percent from 2011/2012 to 2012/2013. An increase of 26.9 percent was observed from 2012/2013 to 2013/2014, followed by a decrease of 37.1 percent in 2014/2015.

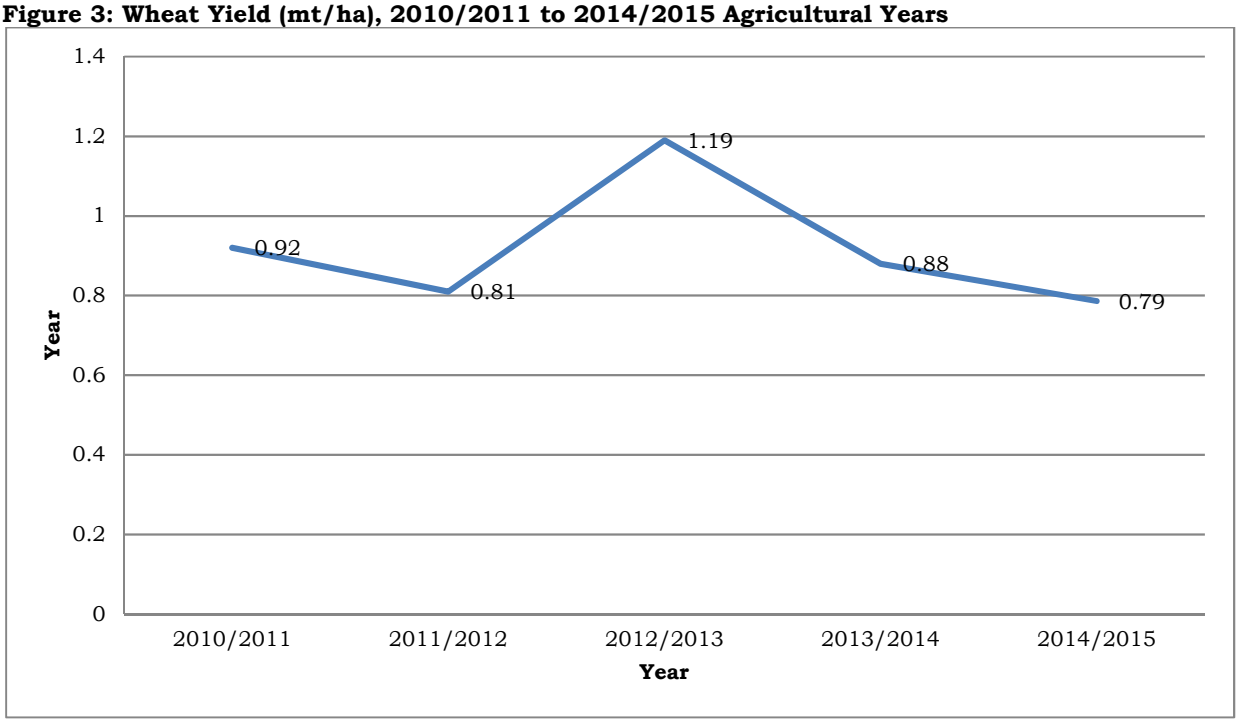
Table 8: Area Planted (ha) to Wheat from 2010/2011 to 2014/2015 Agricultural Years

District	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015
Botha- Bothe	163	689	705	437	396
Leribe	1,684	791	612	1,701	1,055
Berea	427	0	402	210	0
Maseru	1,475	1,450	860	1,025	729
Mafeteng	2,798	1,048	478	0	320
Mohale's Hoek	437	1,408	823	696	589
Quthing	1,347	1,400	580	721	861
Qacha's Nek	1,425	521	473	770	637
Mokhotlong	624	3,599	4,301	5,425	2,745
Thaba- Tseka	11,619	2,772	2,023	3,308	1,661
Lesotho	**22,000**	**13,677**	**11,259**	**14,292**	**8,992**

3.3.2 Trend of Wheat Yield

Trend of wheat yield from 2010/2011 to 2014/2015 Agricultural Years has been fluctuating. Figure 3 portrays wheat yield by district. A decrease of 12.0 percent was observed from 2010/2011 to 2011/2012 followed by an increase of 46.9 percent in 2012/2013. In 2013/2014, wheat decreased by 26.1 percent, and further decreased by 10.2 percent from 2013/2014 to 2014/2015.

Figure 3: Wheat Yield (mt/ha), 2010/2011 to 2014/2015 Agricultural Years



3.3.3 Trend of Wheat Production

This section covers a trend of wheat production from 2010/2011 to 2014/2015. Table 9 presents wheat production by district, 2010/2011 to 2014/2015 Agricultural Years. The decrease in wheat production was observed from 2010/2011 to 2011/2012; however, there was an increase of 21.5 percent from 2011/2012 to 2012/2013. From 2012/2013 to 2013/2014, wheat production decreased by 6 percent, and further decreased by 43.8 percent in 2014/2015.

Table 9: Wheat Production (mt) by District, 2010/2011 to 2014/2015 Agricultural Years

District	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015
Botha-Bothe	16	1,168	962	171	227
Leribe	454	407	242	763	855
Berea	0	0	186	3	0
Maseru	2,831	1,128	706	550	422
Mafeteng	81	334	321	0	252
Mohale's Hoek	889	1,121	347	515	294
Quthing	886	983	415	226	914
Qacha's Nek	665	117	939	911	192
Mokhotlong	12,898	3,914	7,135	7,078	2,511
Thaba-Tseka	1,455	1,846	2,132	2,364	1,403
Lesotho	**20,174**	**11,018**	**13,385**	**12,582**	**7,069**

4.0 Area Planted and Fallow Area

This part deals with the trend analysis for the total area planted to all crops in the country and the fallow area for five consecutive years. Fallow area refers to the area of fields that were not planted. Area planted to all crops decreased by 18.8 percent from 2013/2014 to 2014/2015.

Table 10: Area Planted (ha) to All Crops by District, 2010/2011 to 2014/2015 Agricultural Years

District	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015
Botha-Bothe	8,734	8,763	8,997	6,440	7,122
Leribe	30,831	18,794	28,931	34,967	28,721
Berea	28,339	13,942	21,888	28,257	21,420
Maseru	35,845	18,934	25,462	27,843	31,919
Mafeteng	38,419	14,031	20,534	28,624	24,600
Mohale's Hoek	24,727	12,666	15,337	25,242	16,936
Quthing	9,588	9,601	12,577	10,633	9,195
Qacha's Nek	15,089	7,605	6,946	4,573	4,610
Mokhotlong	29,820	25,326	18,347	26,233	12,659
Thaba-Tseka	17,133	14,616	14,740	20,529	16,133
Lesotho	**238,524**	**144,278**	**173,759**	**213,339**	**173,316**

Table 11 illustrates Fallow Area for 2010/2011 to 2014/2015 Agricultural Years. From 2010/2011 to 2011/2012, an increase of 98.1 percent was observed. Fallow area decreased from 2011/2012 to 2012/2013 by 46.3 percent and further decreased by 7.2 percent from 2012/2013 to 2013/2014. From 2013/2014 to 2014/2015, fallow area decreased by 31.8 percent.

Table 11: Fallow Area (ha) by District, 2010/2011 to 2014/2015 Agricultural Years

District	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015
Botha-Bothe	959	2,588	1,208	602	1,121
Leribe	7,351	27,682	16,671	9,724	6,038
Berea	15,396	19,063	12,052	11,352	8,060
Maseru	10,863	20,172	7,564	8,766	7,924
Mafeteng	17,156	29,444	19,486	18,060	12,638
Mohale's Hoek	9,105	19,793	7,191	8,154	4,321
Quthing	2,314	8,128	3,927	2,883	1,484
Qacha's Nek	1,805	4,452	1,921	1,947	1,627
Mokhotlong	2,261	3,634	2,800	3,614	1,511
Thaba-Tseka	2,014	2,187	813	3,229	1,881
Lesotho	**69,224**	**137,143**	**73,632**	**68,329**	**46,605**

5.0 Availability, Utilization and Consumption of Cereals

Section 5.0 covers availability, utilization and consumption of Maize, Sorghum and Wheat for 2014/2015 marketing year. Total availability of cereals is the quantity of cereals available in the households for use in a Marketing Year. Availability of cereals includes; previous stock attained in the past Agricultural Year, production of the current year, cereals purchased by the households and those received as gifts and incoming exchange of cereals with other commodities.

Total utilization refers to the quantity of cereals used by households inclusive of the stock available in a Marketing Year. Utilization of cereals consists of sales and those given to friends or relatives, outgoing exchange with other commodities, other uses (seeds, animal feeds) and current stock available at the date of interview. Total production in this case refers to the production reported by farmers. Consumption is quantity of cereals consumed as food.

Table 12 shows that 64, 062mt of maize was available in 2014/2015; a decline of 37.2 percent from 102,036mt of the previous year. Utilization increased by 304.7 percent from 4,571mt of the previous year to 18,499mt of the current year. About 45,563mt of maize was consumed in 2014/2015, showing a decrease of 41.0 percent from

77,221mt in 2013/2014, while expected consumption is 44,686mt. Farming holdings have wheat surplus of 4,077mt and a sorghum deficit of 4,176mt.

Table 12: Total Availability and Utilization of Cereals from 2010/2011 to 2014/2015 Marketing Years

Cereal Crops	Agricultural Years	Available	Utilization(other uses)	Consumed as food	Expected consumption	actual/Forecast	Deficit/ Surplus
	2010/2011	86, 196	23, 263	62, 933	61, 723	73,390	11,667
	2011/2012	76,797	8,658	68,139	66,829	42,471	-24,358
	2012/2013	35,625	8,262	27,705	27,173	86,304	59,131
	2013/2014	102,036	4,571	77,221	80,206	90,628	10,422
Maize	2014/2015	64,062	18,499	45,563	44,686	78,246	33,560
	2010/2011	23, 146	6, 752	16, 395	16, 079	9,606	-6,473
	2011/2012	9,109	1,767	7,342	7,201	4,673	-2,528
	2012/2013	4,293	969	3,388	3,437	20,405	16,968
	2013/2014	15,860	419	11,570	11,348	9,860	-1,488
Sorghum	2014/2015	12,317	4,266	8,051	7,896	3,720	-4,176
	2010/2011	10, 264	3, 131	7, 133	6, 996	20,174	13,178
	2011/2012	6, 626	1, 860	4, 766	4, 674	11,018	6,344
	2012/2013	4,249	1,277	2,972	2,917	13,385	10,468
	2013/2014	8,966	1,364	6,376	6,253	12,582	6,329
Wheat	2014/2015	5,255	2,204	3,051	2,992	7,069	4,077

NOTE: The deficit/surplus is only for farming households not for the whole population

6.0 Food Balance sheet

This section covers domestic availability, requirements and domestic shortfall or surplus of Maize, Wheat and Sorghum together with their planned imports. Food balance sheet provides a sound basis for policy analysis and decision making needed to ensure food security. It also provides the basis for national estimates that are used for estimating the overall shortages or surpluses in the country.

Table 13 presents Annual Cereal Balance Sheet for the 2015/2016 Marketing Year. In general all of these three main cereals namely maize, wheat and sorghum have a domestic requirement of 351,175mt yet the domestic availability is only 171,287mt. This leaves a domestic deficit or shortfall of 179,888mt of all cereals. Out of 179,888mt of cereal deficit, Maize, Sorghum and Wheat contributed 69.5 percent, 19.4 percent and 11.1 percent respectively. As a result planned imports are 320,703mt to cover total short fall.

Table 13: Annual Cereal Balance Sheet for the Marketing Year, 2015/2016

Annual Balance sheet as at 30th April 2015				
Figures in (000)				
	Maize	**Wheat**	**Sorghum**	**Total**
1.Domestic Availability	**121.489**	**45.719**	**4.079**	**171.287**
1.1 Opening stock (01/April/2015)	43.243	38.650	0.359	82.252
Formal (Monitored)	37.272	37.448	0.000	74.720
On farm (monitored)	5.971	1.202	0.359	7.532
1.2 Gross Harvest	78.246	7.069	3.720	89.035
2. Gross Domestic Requirements	**246.561**	**80.549**	**24.065**	**351.175**
2.1 Human consumption	242.248	80.113	22.890	345.251
2.2 Feed, seeds, other uses	4.313	0.436	1.175	5.924
3. Domestic Short fall/Surplus	**-125.072**	**-35.569**	**-19.247**	**-179.888**
4.Total Planned Imports	**217.787**	**102.755**	**0.161**	**320.703**
4.1 Commercial Imports	130.000	102.000	0.000	232.000
4.2 Food Aid - Agency	5.965	0.000	0.000	5.965
4.3 Food Aid - Government	0.000	0.000	0.000	0.000
4.4 Other Commercial Imports	81.822	0.755	0.161	82.738
5. Imports Received	**15.500**	**0.205**	**0.013**	**15.718**
5.1 Commercial Imports Received	8.184	0.071	0.000	8.255
5.2 Food Aid - Agency	0.497	0.000	0.000	0.497
5.3 Food Aid - Government	0.000	0.000	0.000	0.000
5.4 Other Commercial imports	6.819	0.134	0.013	6.966
6. Expected Imports	**202.287**	**102.550**	**0.148**	**304.985**
6.1 Commercial Imports Expected	121.816	101.929	0.000	223.745
6.2 Food Aid - Agency	5.468	0.000	0.000	5.468
6.3 Food Aid - Government	0.000	0.000	0.000	0.000
6.4 Other Commercial Imports Expected	75.003	0.621	0.148	75.772
7. Uncovered Shortfall/import Gap	**-**	**-**	**-19.086**	**-19.086**
8. Current Stock Level on 30th April 2015	**35.846**	**11.306**	**0.000**	**47.152**