Republic Of Zambia
Ministry of Transport and Communications
Zambia Meteorological Department

Period: 1st Oct 2016 to 31st Apr 2017. **Special Issue; Season: 2016/2017**

Summary Crop Weather Bulletin

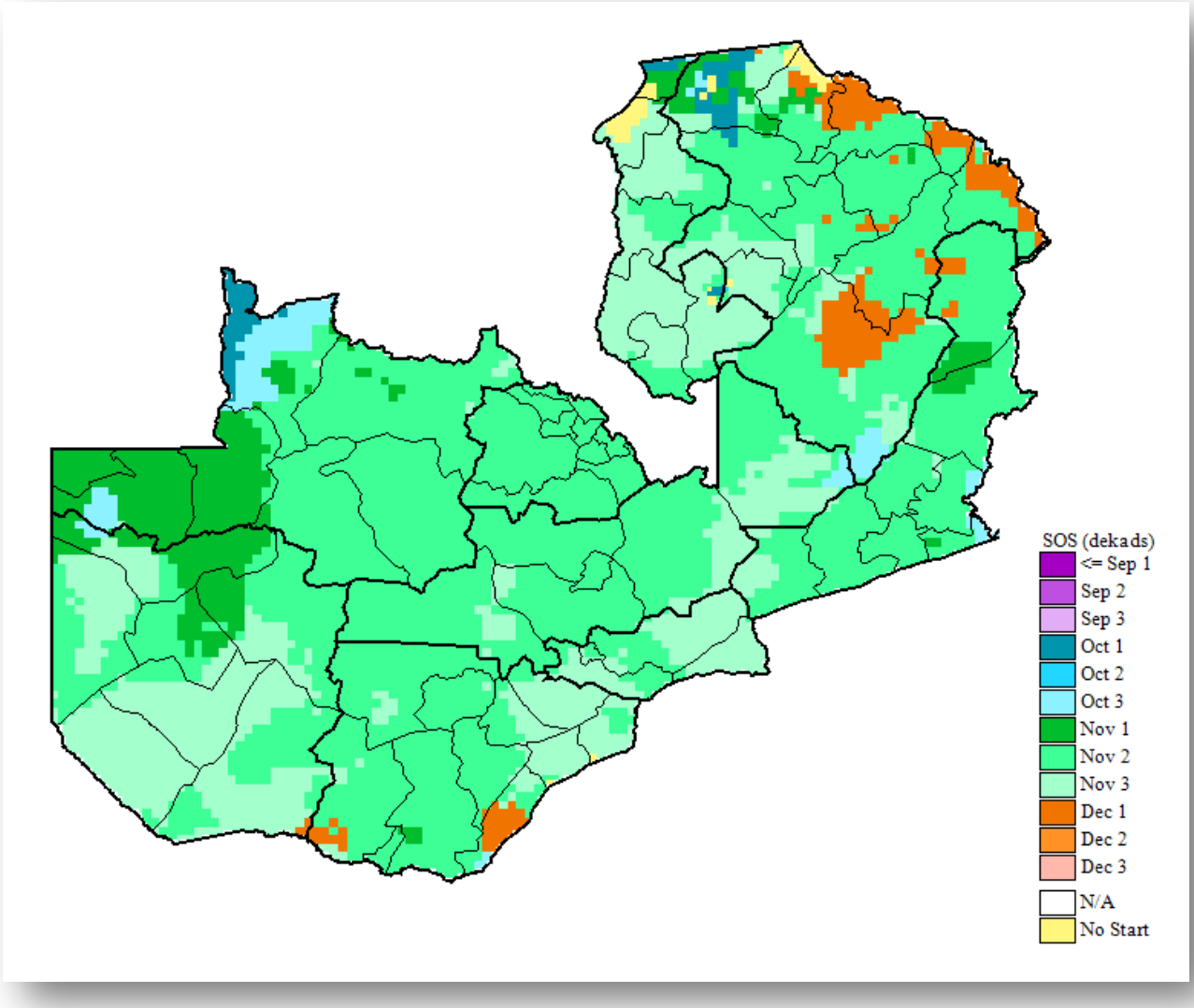

Figure 1; Calculated Start of Season
Period: as of 31st December, 2016

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SYNOPTIC FEATURES

The 2016/2017 rainy season began with thunder showers associated with moist and unstable Congo air in the northern parts of Zambia in early September, 2016 where Mwinilunga in Northwestern Province recorded the highest monthly rainfall total of 32mm followed by Kawambwa in Luapula Province with 18mm. In October 2016, moist Congo air with significant influence from the Angola Low Pressure System spread the rainfall activities over much of the Country tending to be more active over the western parts of Zambia.

During the month of November, 2016 moist and unstable Congo airflow sustained showery activities over much of the northern half of Zambia. Much of Zambia had received significant amounts of rainfall with the highest monthly rainfall total of 199mm from Chipata and Kabompo and the lowest reported was 3mm from Mpika in Muchinga Province. By the first week of December, the Inter Tropical Convergence Zone (ITCZ) was well established over the northern half, moving to the central and later to the southern parts of Zambia by mid-December. As at December 31st 2016, much of Zambia recorded normal to above normal rainfall except for small patches over Copperbelt, Muchinga and Southern Provinces which had below normal rainfall but the threshold for the start of season (SOS) was attained over much of Zambia ***(See fig.1).***

The ITCZ continued oscillating about the southern and central parts of Zambia during the month of January fluctuating in strength. February was mainly characterised by wide spread rainfall activities as Cyclone 'Dineo" hit the coast of Mozambique in mid February, 2017 strengthening the ITCZ. Significant rainfall figures were recorded over much of Zambia with monthly rainfall totals going as high as 442mm over Solwezi, 399mm in Serenje and as low as 132mm over Kafue Polder. By the end of February, 2017, much of the western half of Zambia recorded above normal rainfall. The rest of the Country had normal rainfall with only Mpika district in Muchinga Province recording below normal rainfall.

For the month of March, 2017, the ITCZ oscillated about the southern and central parts up to mid-March when it moved up north allowing relatively moist airflow from the southeast to control the weather over much of Zambia resulting into windy, cloudy and cool weather with isolated showery activities. During the month of April, 2017, a relatively moist and cool airflow from the southeast continued affecting much of Zambia but by mid-month an invasion of moist Congo air in the middle levels of the atmosphere gave significant rainfall activities to the western half of Zambia moving to the eastern half towards the end of the month. Zambia recorded normal rainfall with Western, much of Northwestern and some small portions over Southern and Muchinga Provinces recording above normal rainfall ***(See fig.2).***

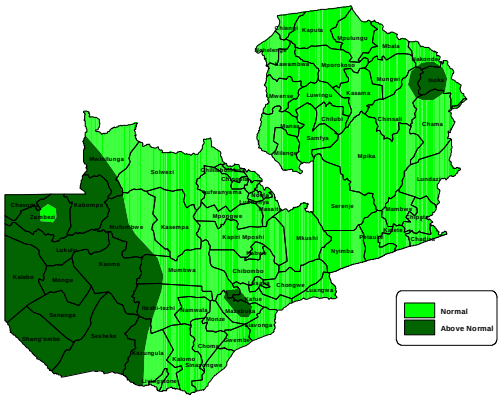

Figure 2: Rainfall Departure from normal as at 30th April, 2017

In terms of cumulative performance since the season started, 1st July, 2016, most areas had received between 1000mm and 1200mm.Small portions over Choma and Kafue districts had cumulative rainfall below 800 with much of Southern, some parts of Central, Muchinga and Eastern Provinces recording cumulative rainfall amounts between 800mm and 1000mm.

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The northern districts of Northwestern, some parts over Mongu, Kawambwa and Isoka districts had cumulative rainfall above 1200mm ***(see Fig.3 below).***

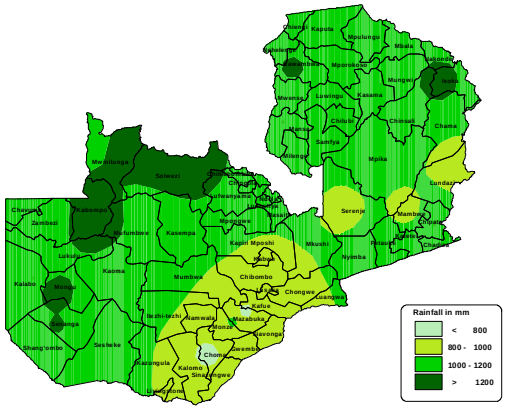

Figure 3: Cumulative Rainfall since 1st July, 2016 to 30th April, 2017

2016/2017 GROWING SEASON.

Zambia Meteorological Department takes keen interest in monitoring the progress of the season for food security purposes. It monitors the rainfall amounts and distribution in relation to soil moisture and crop performance every growing season on a 10 day basis. This part of the summary bulletin mainly focuses on the performance of maize crop in relation to rainfall amounts and distribution.

Land preparations had commenced by first dekad of November 2016 especially over the northern parts of Zambia. However, the start of season (SOS) in this case defined as the planting dekad for the 2016/2017 season had already set over much of the Country by the third dekad of November. By the end of February most parts of the Country had attained 90 - 100 % sufficient soil moisture indicating a good rainfall performance both in amounts and distribution **(*See figure 4).***

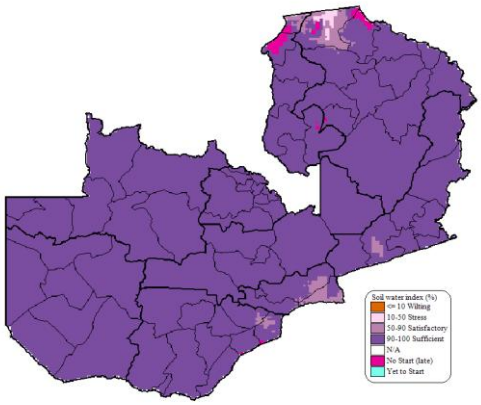

Figure 4: Soil Water Index for maize by 28th February, 2017

The water requirement satisfaction index (WRSI) which is a crop performance indicator of the degree to which a maize crop has been satisfied indicated a 99 - 100 % (very good) to 95 – 99% (good) over much of Zambia by 31st March, 2017 and was indicating good yield

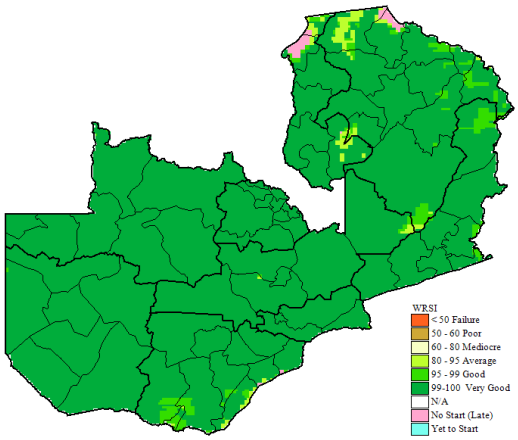

Figure 5: WRSI as at 31st March,2017

prospects for the 2016/2017 season. However, small areas over Chiengi, Kaputa, Samfya, Mambwe and Gwembe had a 50 – 95% (Average) ***See figure 5.***

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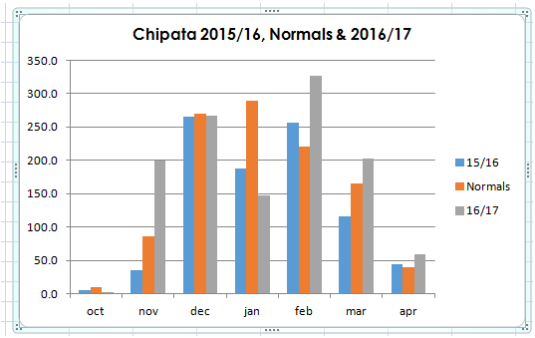
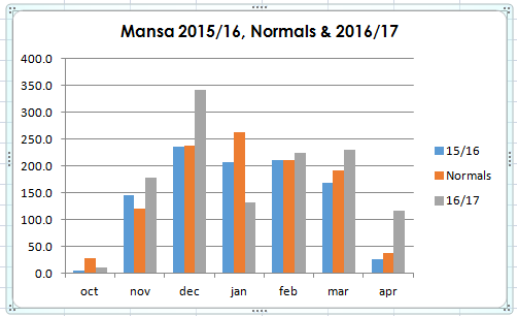
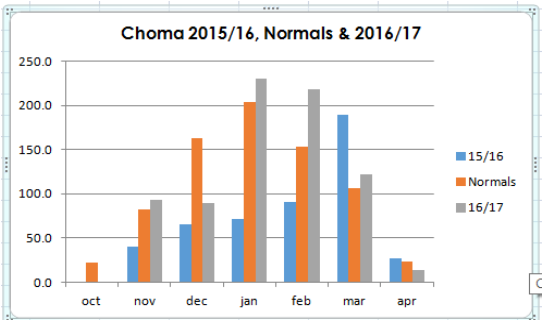
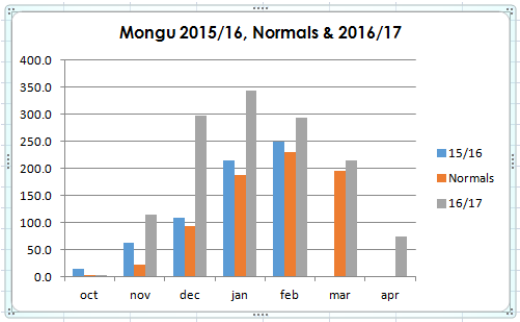
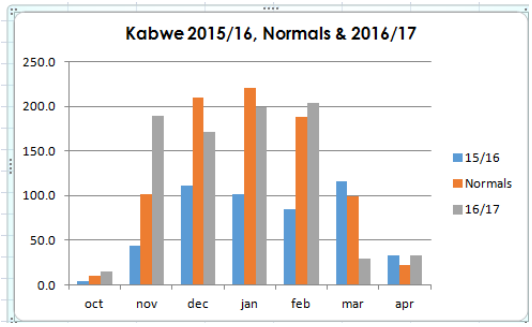
SEASONAL COMPARISON

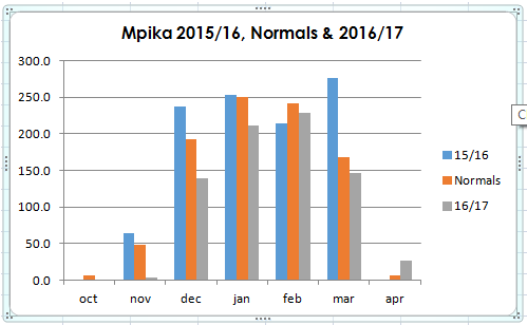


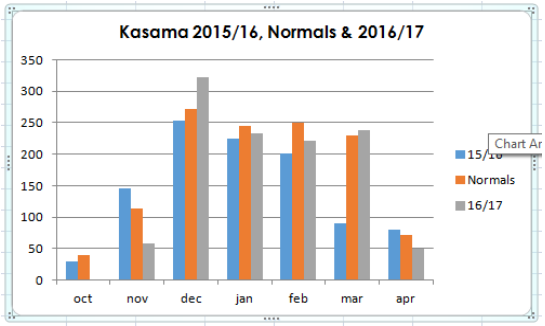


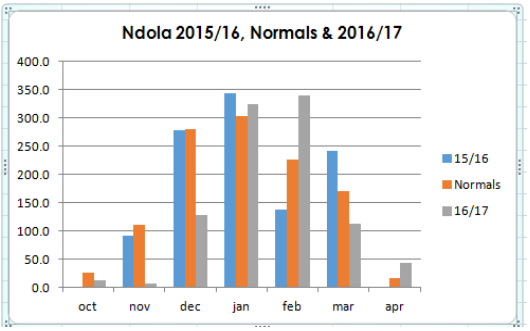


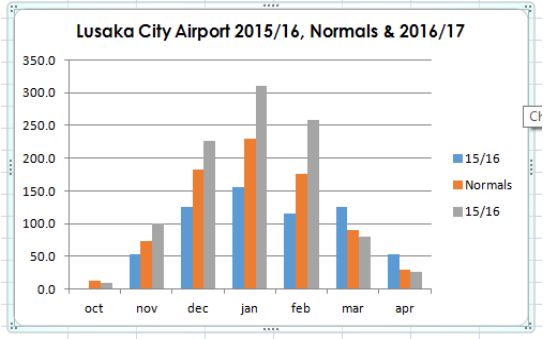


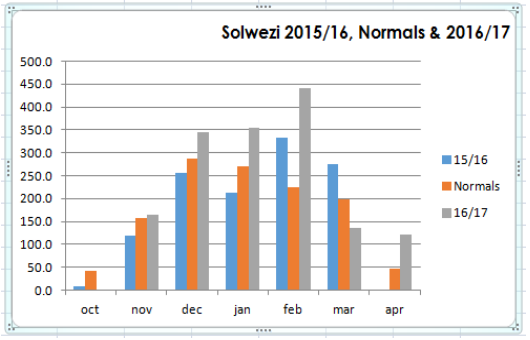












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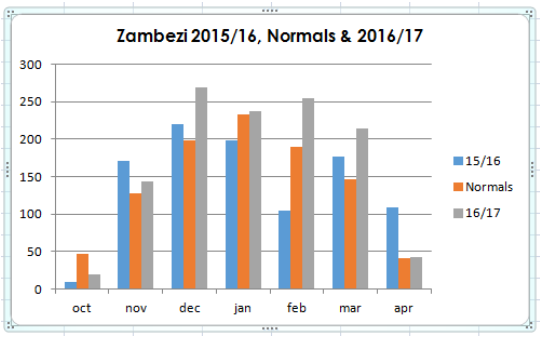

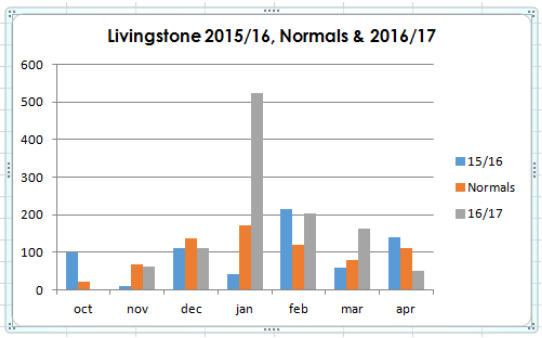

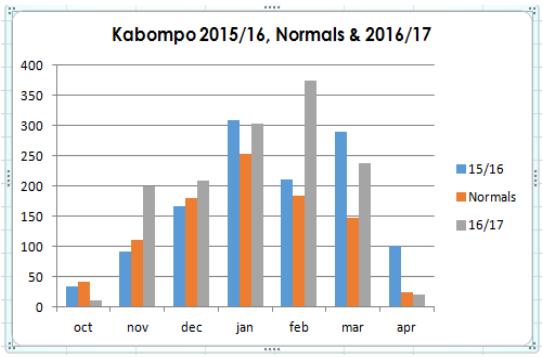

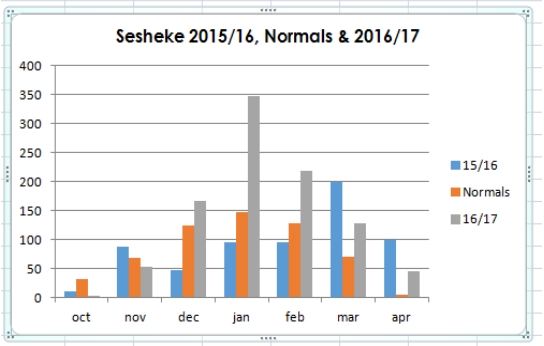

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