



Crop Weather Bulletin

Highlights

- Inter Tropical Convergence Zone oscillates about southern and central Zambia;
- Normal to Above Normal rainfall continued to be recorded over most parts of the Country;
- Very good to good Water Requirement Satisfaction Index observed over Zambia;
- Reduction in rainfall over southern half expected;
- Maize reach maturity stage in most parts of the Country;

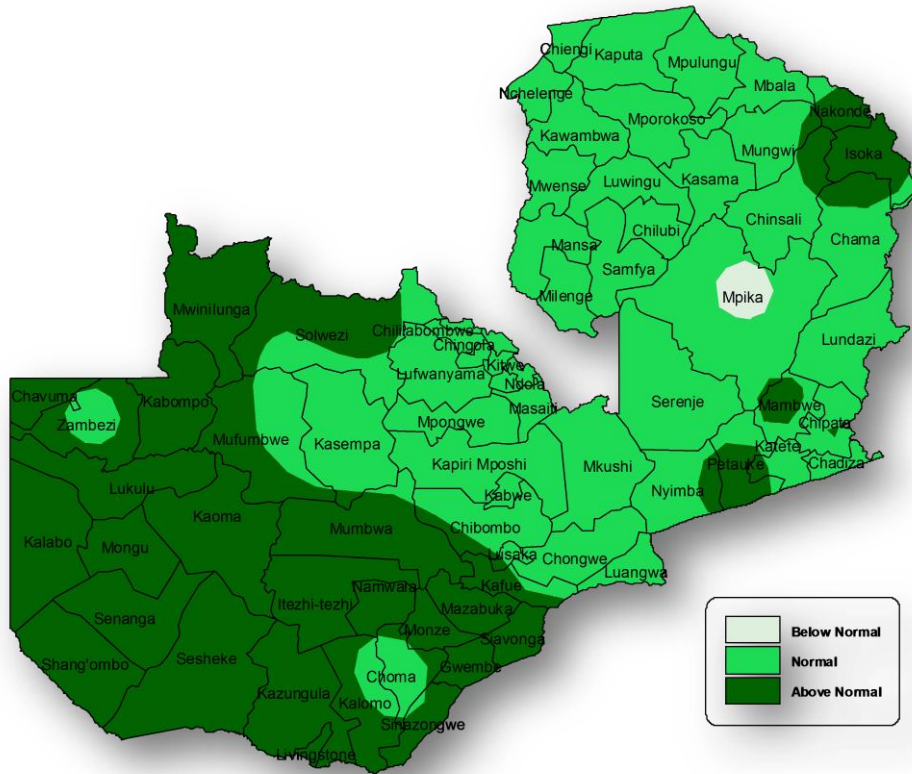


Figure 1: Rainfall Departure Map
Period: 1st July 2016-to-28th February, 2017

RAINFALL DISTRIBUTION

The third dekad of February (21st – 28th) was mainly characterized with the Inter Tropical Convergence Zone (ITCZ) oscillating about the southern parts resulting into wide spread rainfall activities and moving to the central parts towards the end of the dekadal period pushing most of the rainfall activities to the northern half of Zambia.

During the dekad, Solwezi and Misamfu recorded the highest rainfall amounts of 158mm and 153mm respectively, followed by KKIA with 132mm. Zambezi recorded 123mm while Kabompo had 113mm with Mongu and Isoka recording 108mm and 104mm respectively, Chipata had 103mm. The rest of Zambia recorded amounts less than 100mm with the lowest of 14mm being recorded in Petauke (see fig.2 and table 1).

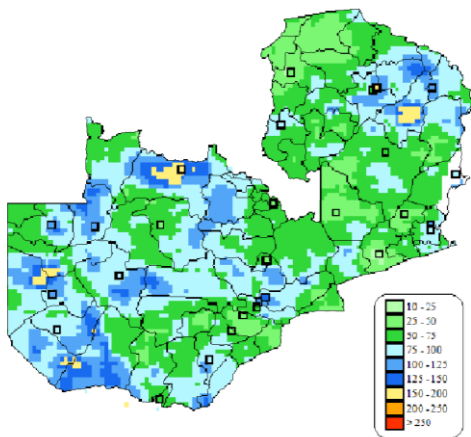


Figure 2: Total Rainfall Map
 Period: 21st - 28th February, 2017
 (satellite validated by station observations)

The number of rain days mainly ranged from 3 to 8 with much of Zambia recording 5 to 8 days. Less than 5 days was recorded in some parts of Central, Southern and Eastern Provinces (see Table 1, Figure 3).

In terms of cumulative rainfall amounts, Solwezi accumulated the highest amount of 1253mm, followed by Kabompo with 1123mm. However, most parts of the country have accumulated amounts ranging between 818mm and 963mm with much of Muchinga and some parts of Eastern, Central, Lusaka and Southern Provinces recording amounts more than 673mm but less than 818mm (see fig.4 & table 1).

The departure from normal rainfall map indicates that most parts of Zambia have recorded normal rainfall. Only a few areas in Muchinga Province (Mpika in particular) have recorded below normal

rainfall. On the other hand, above normal rainfall has been recorded over much of western half of Zambia. The highest deficit of 34% was recorded in Mpika, followed by 10% recorded in Kasama and Misamfu, Northern Province (See fig.1 and table 1).

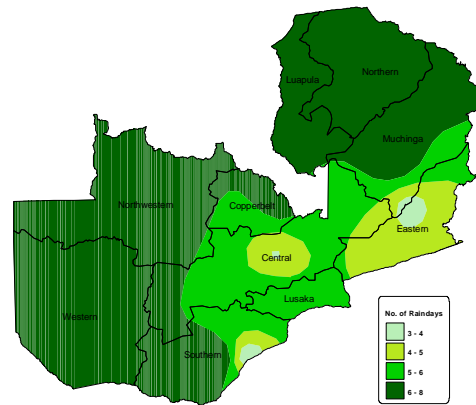


Figure 3: Number of Rain Days Map
 Period: 21st - 28th February, 2017

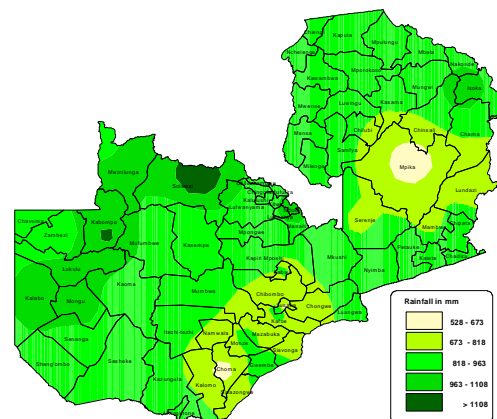


Figure 4: Rainfall Cumulative Map
 Period: 1st July, 2016 to 28th February, 2017

SEVEN DAYS WEATHER FORECAST

The high pressure system cited over the extra tropics will start inducing strong relatively moist and cool airflow from the south east on the 10th and 11th March, 2017, pushing the Inter Tropical Convergence Zone (ITCZ) northwards and significantly reducing the day time temperature over much of southern half of Zambia. On the 12 and 13th march, 2017 a cut off high pressure system over Zimbabwe will temporary induce continental airflow from the south east and slightly increase the day time temperature leaving the I.T C Z to the north.

From the 14th March, 2017 up to the end of the forecast period, a high pressure system over the Indian Ocean will again start inducing strong, relatively moist and cool airflow from the south east reducing rainfall activities over much of southern half of Zambia.

Forecast for the period 10th & 11th March, 2017, **Western, Southern, Lusaka, Central and Eastern Provinces:** Cloudy, windy and cool with light morning rain, afternoon showers in few places.

The Rest of Zambia: Partly cloudy to cloudy with morning rain, afternoon showers and thunderstorms in places.

Forecast for the Period 12th & 13th March, 2017, **Western, Southern, Lusaka and western districts of Central Province:** Partly cloudy, slightly windy and warm at first, becoming cloudy with afternoon thundershowers in few places.

The Rest of Zambia: Partly cloudy to cloudy with morning rain, afternoon thundershowers in places.

Forecast for the Period 14th to 16th March, 2017, **Western, Southern and Lusaka Provinces:** Cloudy, windy and cool with light morning rain, afternoon showers in few places.

The Rest of Zambia: Partly cloudy to cloudy with morning rain, afternoon showers and thunderstorms in places.

Warning; Significant reduction in day time temperature especially on the 10th and 11th March, 2017.

AGROMETEOROLOGICAL CONDITIONS

During the dekad under review, significant amounts of rainfall continued to be received over much of Zambia. Therefore, the water requirement satisfaction index remained on very good to support the full development of the maize crop that has reached maturity stage. A further analysis of the percentage of average rainfall for the dekad under review is evident that the western half of

Zambia is within an average of 80% to 120%. However for some parts of Central, Eastern and Muchinga Provinces was in the range of 50% to 79% (*see fig.5*). Much of the Country indicate an average of about 99% to 100% response for maize in terms of Water requirement Satisfaction Index (WRSI) and 95% to 99% in small patches over Southern, Muchinga and Northern Provinces (*see fig. 6*).

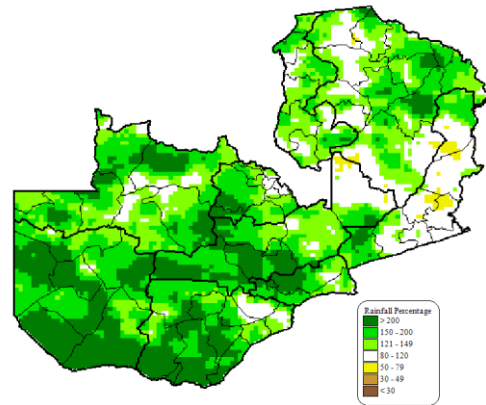


Figure 5: Rainfall Percentage Average
For 21st to 28th February, 2017

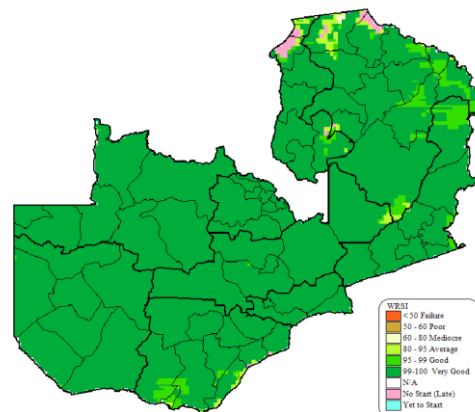


Figure 6: Water Requirement Satisfaction Index (WRSI) for Maize
at 28th February, 2017

Dekad Rainfall and Rain Days Summary Analysis

Period: 21st - 28th February 2017		Dekad 3		issue No 7	2016/17 season		
Station	Observed Rainfall	Rain Days	Dekad Normal	Since 1st July 2016	Normal Rainfall	Rainfall Departure	Rainfall Departure
	mm	(>= 0.5 mm)	mm	Cumulative Rainfall mm			
Kabompo	113	8	49	1123	776	347	45
Kasempa	48	7	64	821	833	-12	-1
Solwezi	158	6	60	1253	984	269	27
Zambezi	123	6	48	932	804	129	16
Kawambwa	25	7	48	849	850	-1	0
Mansa	79	7	57	885	864	21	2
Kasama	71	7	72	834	922	-88	-10
Misamfu	153	8	53	824	916	-92	-10
Isoka	104	7	64	1032	755	277	37
Mpika	51	8	53	528	797	-269	-34
Ndola	46	7	59	1020	947	73	8
Kaoma	81	7	52	948	700	248	35
Mongu	108	6	54	1049	734	315	43
Senanga	88	7	35	932	570	362	63
Kabwe Met	80	6	47	853	732	121	16
Kabwe agro	47	3	47	776	732	44	6
Serenje	31	5	57	805	817	-11	-1
Lusaka City	100	6	46	939	674	265	39
KKIA	132	6	36	637	669	-32	-5
Chipata	103	5	73	840	878	-38	-4
Lundazi	81	5	48	695	640	55	9
Mfuwe	27	3	46	781	617	163	26
Msekera	86	4	58	970	766	203	27
Petauke	14	4	50	957	762	195	26
Chipepo	46	3	48	881	606	276	46
Choma	89	8	48	631	627	4	1
Kafue polder	39	5	27	670	532	138	26
Magoye	31	5	47	864	611	253	41
Livingstone	63	7	36	900	523	377	72