



Crop Weather Bulletin

Highlights

- Inter – Tropical Convergence Zone (ITCZ) continued to oscillate about the southern and central parts of Zambia;
- Much of Zambia recorded Normal to Above Normal Rainfall;
- Soil water index indicated sufficient moisture to support maize growth over much of Zambia;
- Southern half of Zambia indicates a reduction in rainfall amounts in the next seven days;

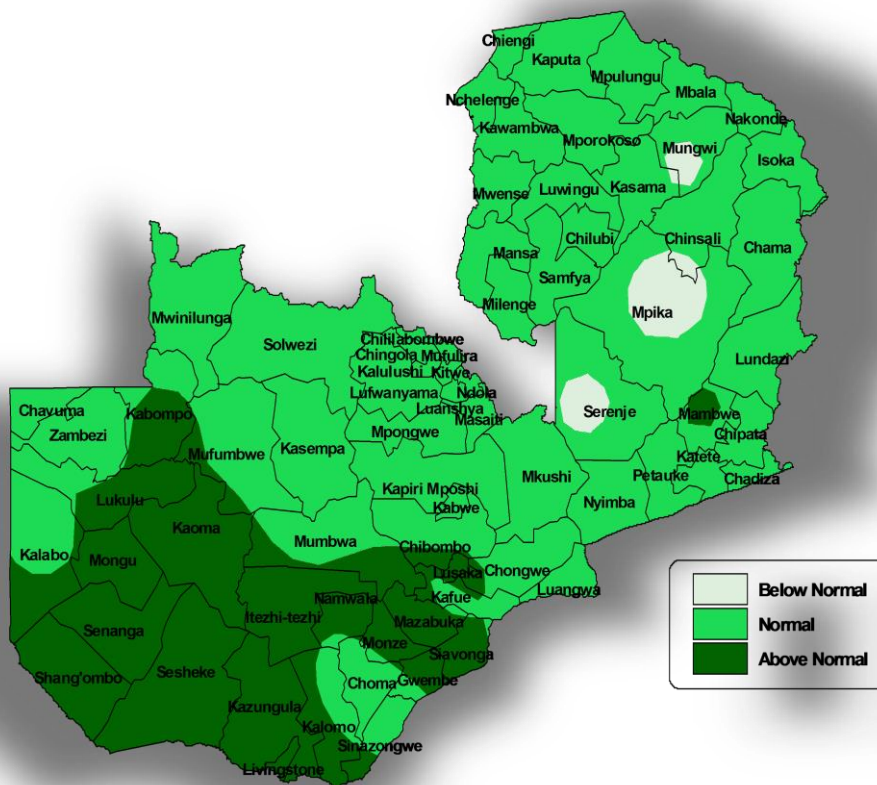


Figure 1: Rainfall Departure Map

Period: 1st July 2016-to-31st January 2017

RAINFALL DISTRIBUTION

Rainfall activities continued especially over the southern half of Zambia during the third dekad of January 2017 (21 – 31st) as the Inter Tropical Convergence Zone (ITCZ) continued to oscillate about the central and southern parts of Zambia.

During the dekad under review, Lusaka City recorded the highest rainfall amount of 170mm; followed by Ndola and Livingstone with 165mm. Lundazi had 148mm while Kafue Polder and Mongu recorded 138mm and 134mm respectively. Solwezi recorded 130mm with Kaoma in western Zambia recording 102mm. The rest of the stations recorded rainfall amounts less than 100mm. The lowest recorded rainfall during the dekad was 15mm from Chipata in Eastern Province (**Table 1 & fig. 2**)

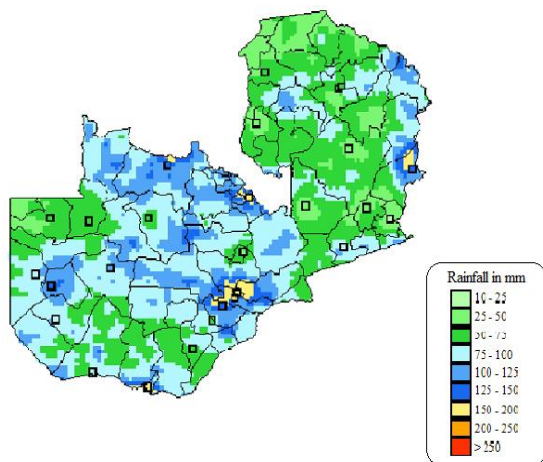


Figure 2: Total Rainfall Map

Period: 21st -31st January 2017
(satellite validated by station observations)

In terms of the number of rain days; Lusaka City and Livingstone received rainfall throughout the dekad with Solwezi and Senanga recording 9 rain days. The rest recorded less than 9 rain days with Chipata, Lundazi and Mfuwe recording 3 rain days. (**Table 1 & Figure. 3**)

The cumulative performance since 1st July, 2016, indicates higher cumulative

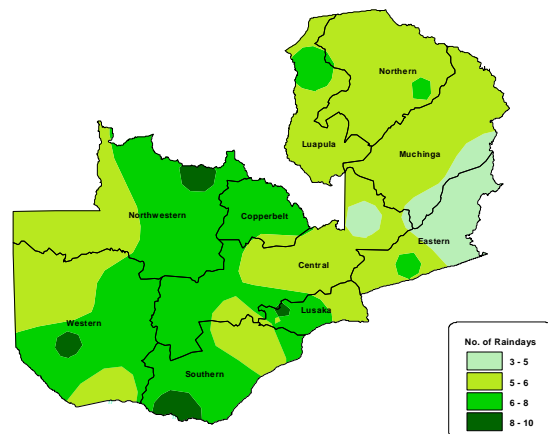


Figure 3: Number of Rain Days Map

Period: 21st -31st January 2016

rainfall amounts of more than 500mm over most parts of Zambia apart from Mpika, Serenje, Lundazi and Choma. Solwezi recorded the highest cumulative rainfall amount of 865mm, followed by Kabompo with 748mm. On the other hand, Mpika recorded the lowest cumulative rainfall amount of 352mm followed by Serenje and Choma with 407 and 413 respectively (**Table 1 & fig. 4**).

In terms of departure from normal rainfall as at 31st January, 2017, much of Zambia recorded normal to above normal rainfall. Above normal rainfall was recorded over much of Western, Southern and some parts over Northwestern, Lusaka, Central and Eastern Provinces. Small patches of below normal rainfall were observed over Serenje, Mpika and Mungwi districts. The highest surplus of 102% was recorded in Livingstone, Southern Province while the highest deficit of 41% was recorded in Mpika, Muchinga Province (**Table 1 and fig. 1**).

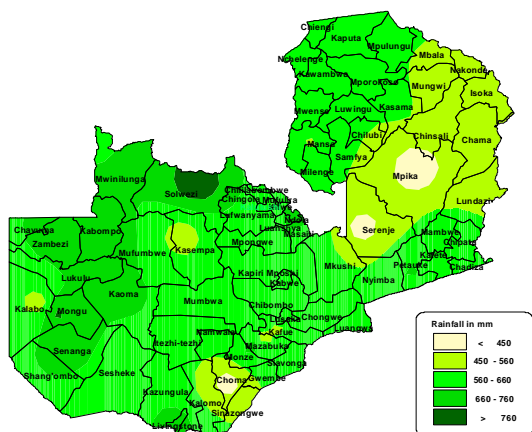


Figure 4: Rainfall Cumulative Map
Period: 21st -31st January 2017

SEVEN DAYS WEATHER FORECAST

7th – 14th February, 2016

General Situation:

On the 7th and 8th February, 2017, the ITCZ will be oscillating about the southern parts of Zambia and the high pressure system (anticyclone) over Luapula, Northern, and Muchinga Provinces will reduce rainfall activities over much of eastern half of Zambia. From 9th to 12th February, 2017, a high pressure system from the South East coast of South Africa will be pushing northwards weakening and moving the ITCZ to the central parts of Zambia allowing relatively moist and stable airflow from the southeast to affect much of southern half reducing rainfall activities. By 13th February, 2017, the High pressure System will drift further south east, and tend to strengthen and move the ITCZ to the south allowing moist and unstable Congo airflow to cover much of the Country.

In view of the general situation, on the 7th and 8th February, **Eastern, Muchinga, Northern, Luapula and Eastern districts of Central Province:** Partly cloudy to cloudy with a chance of morning rain, afternoon showers and thunderstorms in few places. **The rest of Zambia** will be cloudy with morning rain, afternoon

thundershowers in places, night rain and thunder in places.

From 9th to 12th February, 2017 **Western, Southern, Lusaka and western districts of Central Provinces;** Partly cloudy to cloudy with a chance of light morning rain, afternoon showers and thunderstorms in few places. **The Rest of Zambia** will be mainly cloudy with morning rain, afternoon thundershowers in places.

On the 13th and 14th February, 2017; **Muchinga, Northern and the southern districts of Western and Southern Provinces;** Partly cloudy to cloudy with a chance of morning rain and afternoon showers and thunderstorms in few places.

AGROMETEOROLOGICAL CONDITIONS

The continued rainfall activities especially over the western half of Zambia has maintained sufficient soil moisture over the western half of the Country, while the eastern half still observed 50 to 90% satisfactory in some areas. Reduction of rainfall activities over the north-eastern Zambia was a good opportunity for the farmers to weed and apply fertilisers to their crops. A satellite based index on the Water Requirements satisfaction Index for maize still indicates an average of 99 – 100%; very good and small patches of 95 – 99%, good indication for the farmers that planted maize (**Table 1 and fig. 1**).

The Rest of Zambia, mainly cloudy with morning rain, afternoon showers and thunderstorms in places. Heavy falls and flash floods are expected over North-western, Central, Copperbelt and Lusaka Provinces.

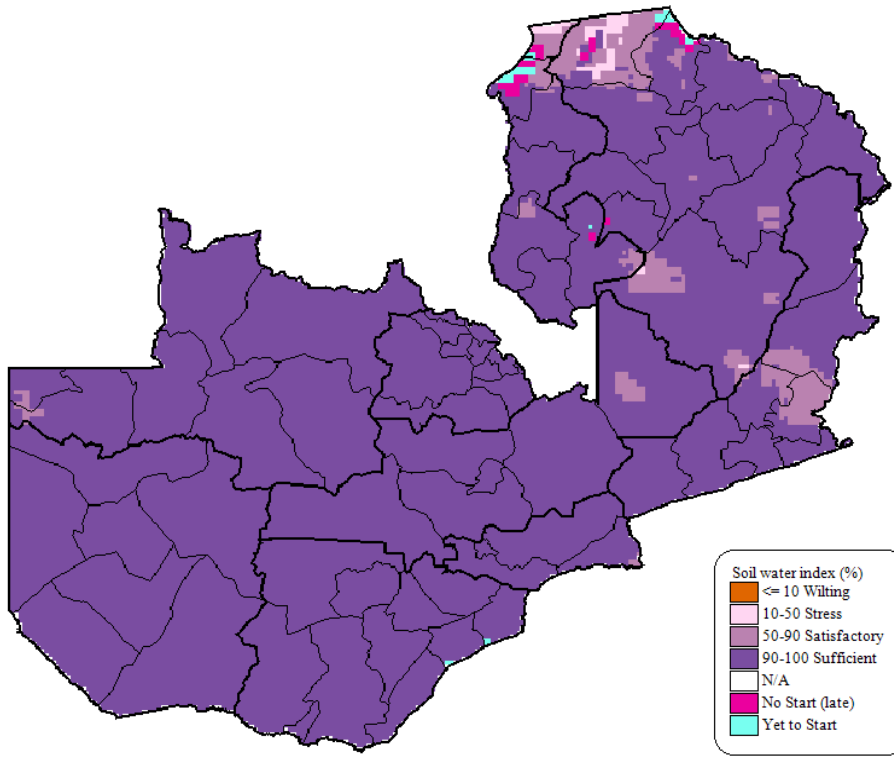


Figure 5: Soil Water Index Maize
(at 31st January 2017)

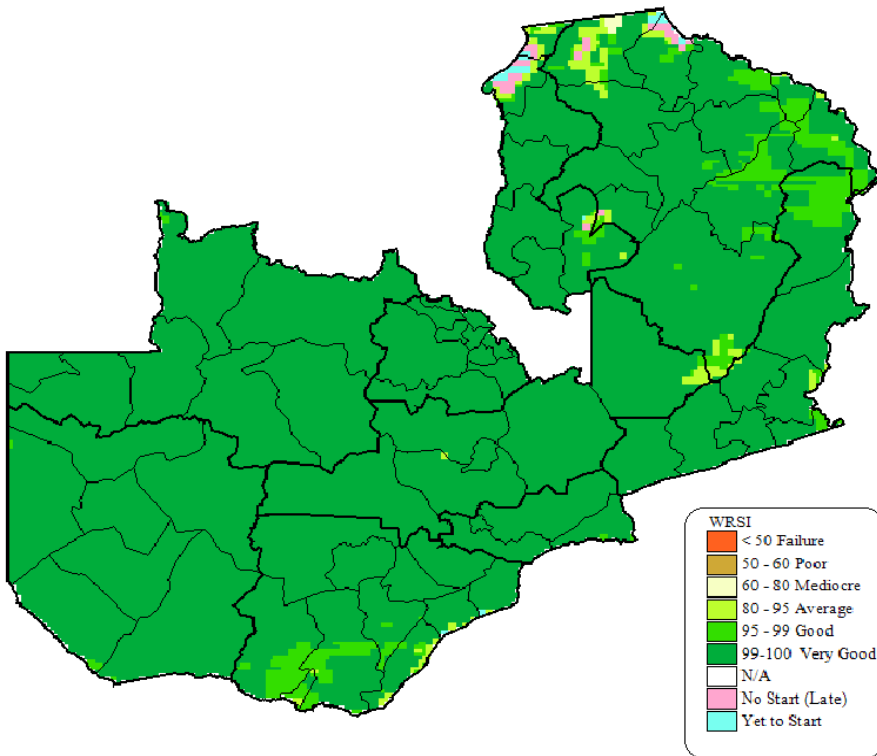


Figure 6: Water Requirement Satisfaction Index (WRSI) for Maize
(at 31st January 2017)

Table 1

			Dekad rainfall and Rain days Summary					
Period:	21-31 January,2017		Issue No: 05	Season	2016/17			
Station	Observed		Dekadal		Total Since 1 July 2016			
			Normal					
					Seasonal			
	Rainfall	Rain days	Rainfall	Cumulative	Normal	Rainfall	Percentage	
				Rainfall		Departure	Departure	
	mm	(>=1mm)	mm	mm	mm	mm	%	
Zambezi	51	5	78	678	614	64	10	
Kasempa	54	8	89	512	638	-126	-20	
Solwezi	130	9	96	865	760	105	14	
Kabompo	57	5	98	748	592	156	26	
Kawambwa	55	7	70	623	677	-54	-8	
Mansa	32	5	89	660	653	7	1	
Mansa Agro	25	5	89	531	653	-122	-19	
Kasama	59	5	76	616	668	-52	-8	
Misamfu	65	7	87	500	663	-163	-25	
Mpika	42	6	95	352	598	-246	-41	
Ndola	165	8	123	683	721	-38	-5	
Mongu	134	5	80	756	539	217	40	
Senenga	96	9	67	683	435	248	57	
Kalabo	89	6	84	518	478	40	8	
Sesheke	85	5	72	570	377	193	51	
Kaoma	102	8	84	677	525	152	29	
Kabwe	69	6	87	576	545	31	6	
Kabwe Agro	41	5	87	618	545	73	13	
Serenje	27	4	97	407	589	-182	-31	
Lusaka City	170	10	86	690	499	191	38	
Mt makulu	89	6	89	518	519	-1	0	
Chipata	15	3	102	616	657	-41	-6	
Lundazi	148	3	72	499	458	42	9	
Mfuwe	46	3	66	580	455	125	27	
Petauke	83	7	108	664	562	102	18	
Choma	55	7	84	413	473	-60	-13	
Kafue Polder	138	6	66	538	406	132	32	
Livingstone	165	10	70	697	345	352	102	
Magoye	69	5	79	685	462	223	48	