



Crop Weather Bulletin

Highlights

- **Inter – Tropical Convergence Zone (ITCZ) is oscillating about the central and southern parts of Zambia;**
- **Much of Zambia receives significant rainfall amounts;**
- **Normal to Above Normal rainfall recorded over much of Zambia;**
- **Plants reach emergence and Vegetative stages;**

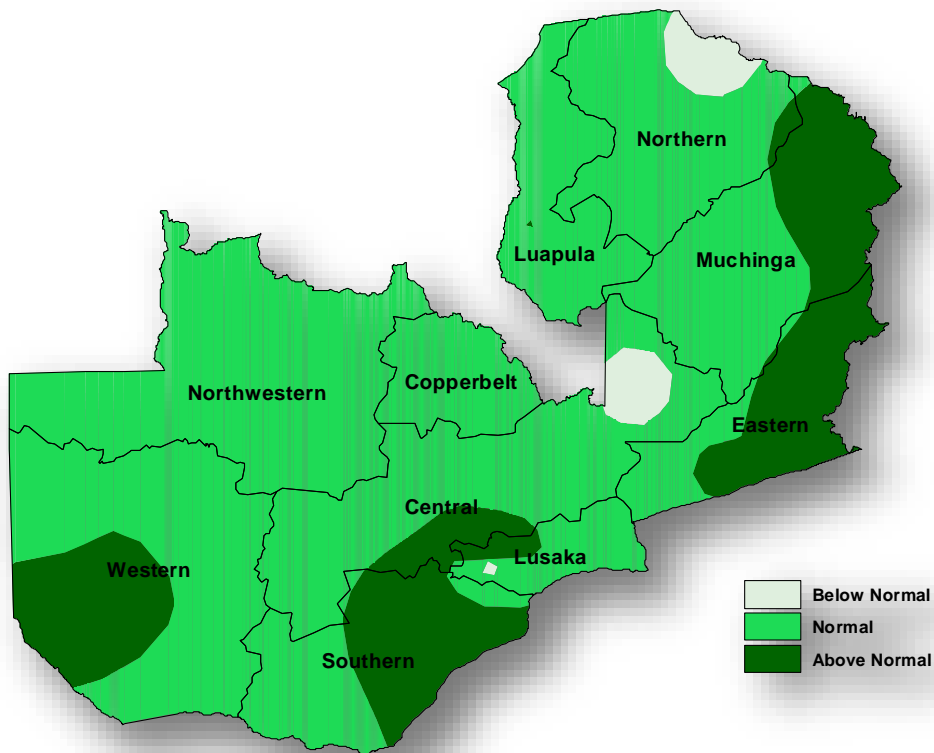


Figure 1: Rainfall Departure Map
Period: 1st July 2016-to-20th December, 2016

RAINFALL DISTRIBUTION

During the second dekad of December 2016 (11th to 20th), the Inter Tropical Convergence Zone (ITCZ) which is the main rain bringing belt was oscillating about the central and southern parts of Zambia drawing in moist and unstable air from the North West. This led to an increase in rainfall and gave most parts of the country moderate to heavy rainfall.

The dekadal performance during the dekad under review (11 – 20 December, 2016) most parts of the country experienced 6 and more rainy days, with Zambezi in Northwestern recording 10 rainy and Lundazi recording the lowest with 3 rainy days. The highest dekadal rainfall total of 213mm was recorded in Chipepo followed by 163mm from Lusaka City Airport with Chipata recoding 134mm. Kalabo and Senanga in Western Province had 125mm and 124mm respectively and Kaoma also with in the Province recorded 118mm of rainfall. Other amounts recorded ranged between 105mm and 21mm with the lowest being recorded in Isoka, Muchinga Province (See table 1, figures 2 & 3).

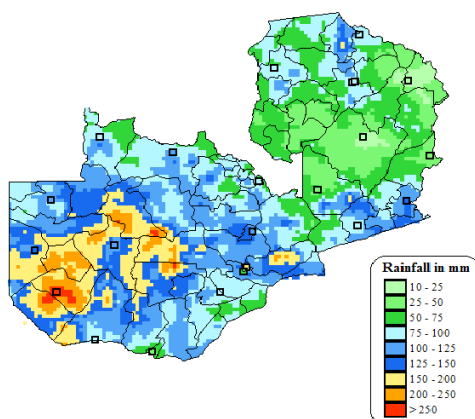


Figure 2: Total Rainfall Map

Period: 11th-20th December, 2016

(satellite validated by station observations)

The ITCZ continued oscillating about the central and southern parts of Zambia

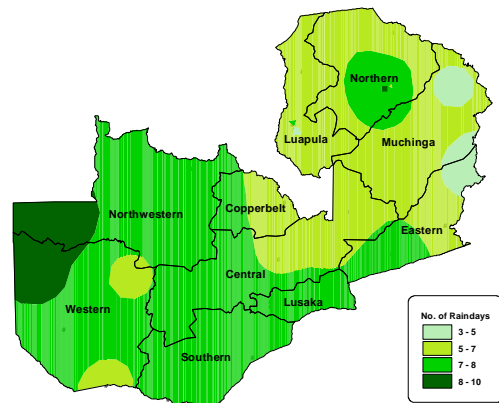


Figure 3: Number of Rain Days Map

Period: 11th-20th December, 2016

negatively affecting much of north-eastern Zambia and thus Isoka and Lundazi recorded the lowest number of rain days of 4 and 3 respectively (See figures 3, table 1).

For the cumulative performance since the season started (1st July 2016), the highest cumulative total of 397mm has been recorded in Solwezi with Chipata and Mansa recording 396mm and 385mm respectively. 375mm has been recorded in Isoka while 371mm was recorded at Lusaka City Airport. Some parts of Luapula and Northern, and Western Provinces including some areas in the Central and Southern Provinces have accumulated amounts ranging between 331mm and 250mm. The lowest cumulative amount of 129mm was recorded in Mt Makulu, Lusaka Province (See table 1, figures 4).

In terms of departure from normal, much of Zambia has so far recorded normal to above normal rainfall. Above normal rainfall has been recorded in some parts of Western, Southern, Lusaka, Eastern and Muchinga Provinces. Elsewhere, normal rainfall has been recorded with few stations in Central, Northern and Southern Provinces recording below normal rainfall. The highest deficit of 44% has been

recorded in Mt Makulu followed by 41% in Serenje (*Table 1 & Fig 1*).

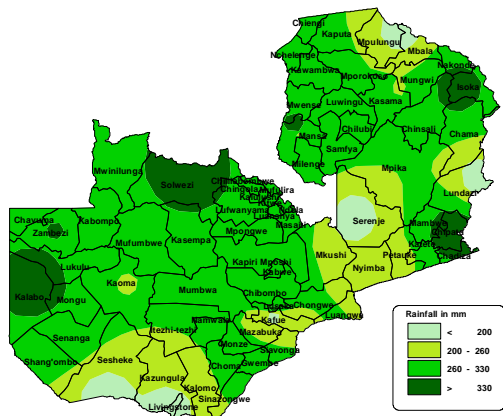


Figure 4: Rainfall Departure Map
 Period: 11th-20th December, 2016

WEATHER FORECAST

29th – 31st December, 2016

General situation:

The Inter Tropical Convergence Zone (ITCZ) is strengthening and will be oscillating about the southern parts of Zambia throughout the forecast period.

In view of the general situation, from 29th – 31st December, 2016;

Forecast for the Period 29 – 31st December, 2016; **Muchinga and Eastern Provinces will be partly cloudy to cloudy with afternoon showers and thunderstorm in few places. The Rest of Zambia will be mainly cloudy with morning rain in places, breaking into sunny periods, afternoon showers and thunderstorms in places. Night rain and thunder in few places**

AGROMETEOROLOGICAL CONDITIONS

The dekad under review saw wide spread rainfall activities with significant rainfall amounts recorded over much of Zambia. This enhanced seed germination and further development of the maize crop that was at vegetative stage. This also led to an increase in weeds in most fields. The condition was also favorable for replanting (gapping) in farms that were attacked by army worms where traces have been reported over some parts of Southern and Copperbelt Provinces.

A general increase in soil moisture over most parts of the country due to an improvement the rainfall activities during the last dekad.

Table 1

Dekad rainfall and Rain days Summary							
Period:	11-20 Decemberr,2016		Issue No: 01		Season		2016/17
Station	Observed		Normal Total Since 1 July 2016				
	Rainfall	Rain days	Rainfall				
				Cumulative Rainfall	Normal Rainfall	Departure	Percentage Departure
	mm	(>=1mm)	mm	mm	mm	mm	%
Zambezi	104	10	56	331	293	38	13
Solwezi	103	8	96	397	382	15	4
Kawambwa	89	6	81	319	394	-75	-19
Mansa	95	7	98	385	305	80	26
Mansa Agro	40	4	98	244	305	-61	-20
Kasama	94	9	95	278	323	-45	-14
Misamfu	79	6	82	248	309	-61	-20
Mbala	96	6	82	164	276	-112	-41
Isoka	21	4	62	375	203	172	85
Ndola	80	6	99	311	319	-8	-2
Kaoma	118	6	49	257	246	11	4
Senanga	124	7	39	294	202	92	45
Sesheke	81	6	38	164	181	-17	-9
Kalabo	125	9	43	215	184	31	17
Kabwe Agro	105	6	67	271	243	28	12
Serenje	40	5	73	138	234	-96	-41
Lusaka C. Airport	163	8	55	371	203	168	83
Mt makulu	57	7	62	129	232	-103	-44
Chipata	134	6	105	396	271	125	46
Petauke	81	8	66	246	222	24	11
Lundazi	38	3	52	207	168	39	23
Chipepo	213	8	62	309	166	143	86
Livingstone	50	7	34	158	176	-18	-10