



Republic Of Zambia
Ministry of Transport and Communications
Zambia Meteorological Department

Period: 10 – 20 Feb, 2017

Issue No. 7, Season: 2016/2017

Crop Weather Bulletin

Highlights

- Intertropical Convergence Zone (ITCZ) strengthens and continues oscillating about the southern parts of Zambia.
- Normal to above normal rainfall recorded in most parts of Zambia;
- An increase in rainfall activities expected across the country.
- Maize crop reach flowering and grain filling stages.
- Satellite depicts more rains in Northwestern and Central parts of Zambia

Rainfall Departure Map From 1st July, 2016 to 20th February, 2017.

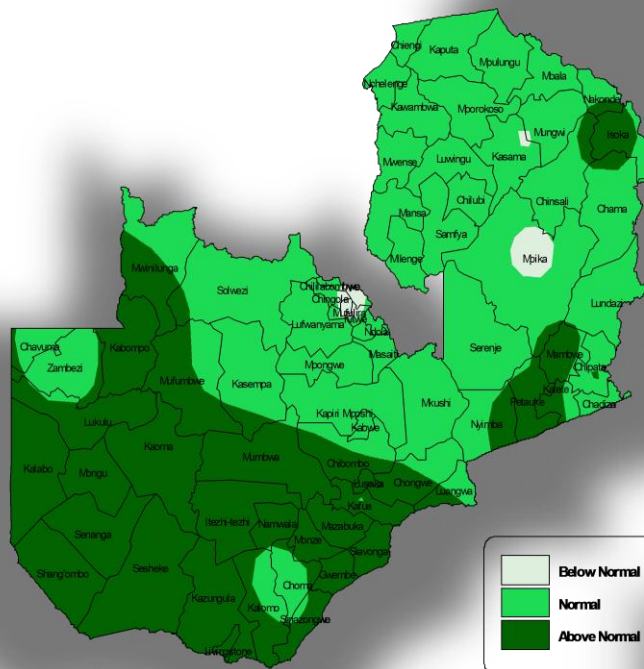


Figure 1: Rainfall Departure Map
Period: 1st July 2016-to-20th February, 2017

RAINFALL DISTRIBUTION

The Period from 11th-20th February, 2017, the low pressure system that was over the eastern parts of Zambia linked up with the deep low pressure system over the Mozambique Channel and moved westwards and further lined up with the Angola low pressure system. This enhanced the rainfall activities over the western half of Zambia with heavy falls over Western, Northwestern, Central, Copperbelt and Lusaka Provinces. The eastern half was covered by relatively moist and stable airflow from the southeast hence had reduced rainfall activities.

The dekadal rainfall figures indicate that more rainfall activities were experienced over the western half of the country as evident by the rainfall amounts and the number of rain days. Heavy downfalls were experienced in Northwestern, Copperbelt, Central and Western Provinces (See Figure 2). Kabompo reported the highest rainfall amount of 183mm followed by Serenje 144mm, Kasempa 139mm, Mpika 136mm, Kawambwa 122 and Msekera 121 and Kaoma 117mm. Other stations that reported substantial amount include Mongu with 106mm, Solwezi 104mm, Petauke 103mm and Senanga 101. The rest of the stations reported rainfall below 100 with the lowest amount of 21mm reported over Kabwe Agromet and Lusaka City Airport stations. The average number of rain-days country wide has been 6. (See Table 1).

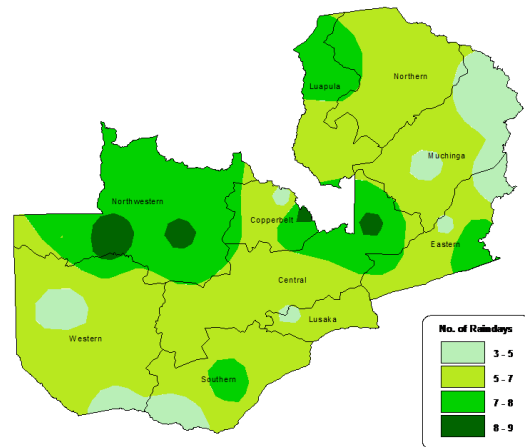


Figure 3: Number of Rain Days Map

Period: 10th - 20th February, 2017

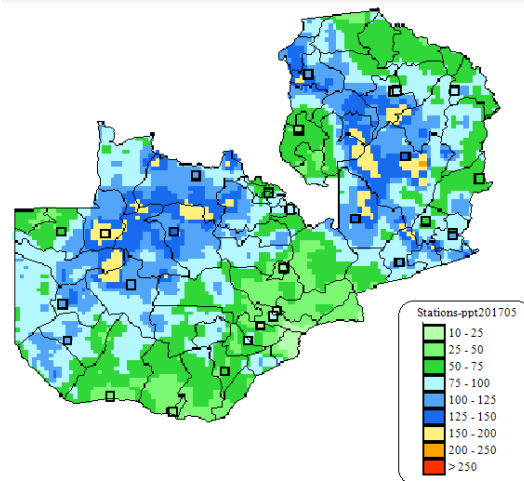


Figure 2: Total Rainfall Map

Period: 10th-20th February, 2017

(satellite validated by station observations)

During the dekad under review, the number of rain days ranged between 3 and 9 with Isoka, Lundazi, Mongu and Lusaka City Airport reporting the lowest days of 3. Kabompo recorded the highest number of 9 rain days (See Table 1 & Figure 3).

The cumulative rainfall since 1st July, 2016 indicates that more than 1000mm of rainfall has been recorded over Solwezi and Kabompo. Most of the stations have recorded rainfall totals between 700mm and 900mm except for Mpika, Choma, Misamfu, Lundazi, Kafue polder, Kafironda and Sesheke that have reported less than 700mm. (See Table 1, Figure 4).

The rainfall departure map indicates that the country has received normal rainfall to above normal rainfall except for Mpika, Misamfu and Kafironda which have so far recorded below normal rainfall. The highest surplus was 72% over Livingstone followed by 58% over Senanga, Chipeto and Magoye had 50% and 48% respectively. On the lower side, normal towards deficit rainfall was recorded over Kasama and Choma with -10% and -6% respectively (See Table 1, Figure 1).

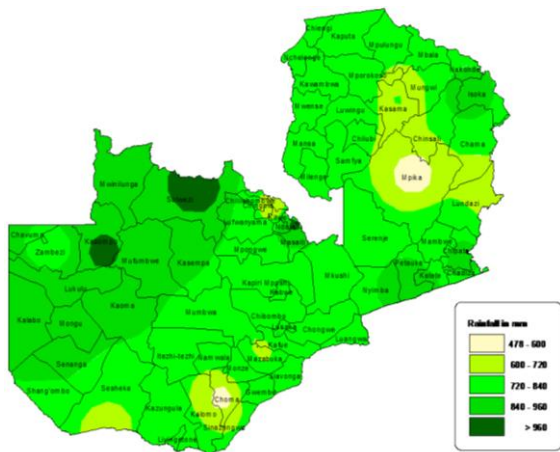


Figure 4: Rainfall Cumulative Map
Period: 1st July, 2016 to 20th February, 2017

SEVEN DAYS WEATHER FORECAST

24th February to 1st March, 2017

The outbreaks of rain and occasional thunder in many places will characterise the period 24-27th February, 2017 as the Intertropical Convergence Zone (ITCZ) strength and continues oscillating about the southern parts of Zambia. Heavy falls and flash floods expected over Western, Southern, Lusaka, Eastern, Central and Copperbelt Provinces. The period from 28 February-1st March, 2017, the anticyclone (high pressure system) over the eastern half of Zambia will tend reduce rainfall

activities over Muchinga, Northern and Luapula province.

Forecast for 24th to 27th February, 2017

All areas: Mainly cloudy with outbreaks of rain and occasional in many places.

Forecast for 28th Feb to 1st March, 2017

Luapula, Northern and Muchinga Provinces: Cloudy conditions with morning rain in few places and afternoon showers and thunderstorms.

The Rest of Zambia: Mainly cloudy with thundershowers.

AGROMETEOROLOGICAL CONDITIONS

Most of the maize crop in Zambia has attained their flowering and grain filling stages. While the replanted maize crop in areas that were affected by army worms is at vegetative stage. The substantial amount of rains received during the dekad coupled with good distribution across the country was good for this reproductive stage. The expected increase in rainfall activities across the country will help the full development of the Maize cobs, but the forecasted drop in temperatures may prolong the maturity stage.

Generally, much of the Country shows very good Water requirement Satisfaction Index (WRSI), for maize, indicating good crop performance based on the availability of water so far. (See fig. 5 & 6).

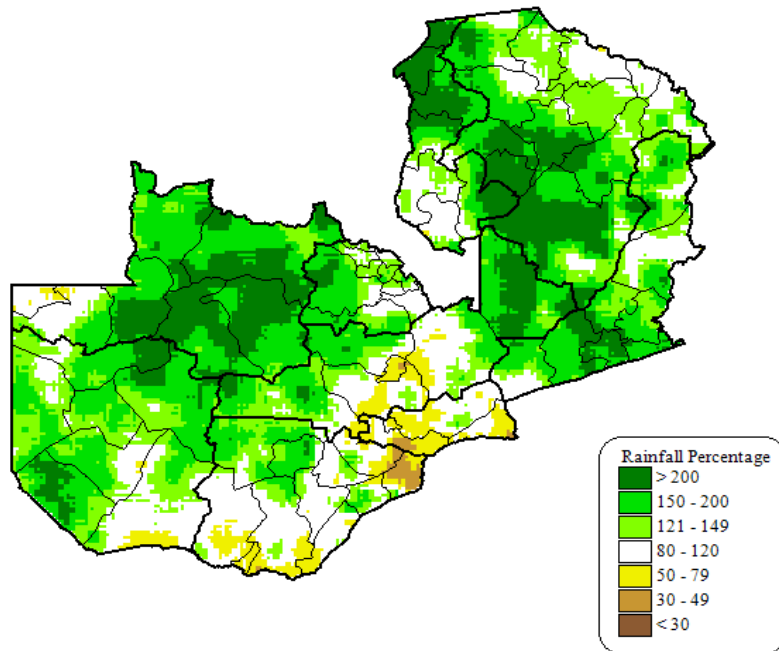


Figure 5: Rainfall Percentage Average
For 10th to 20th February, 2017

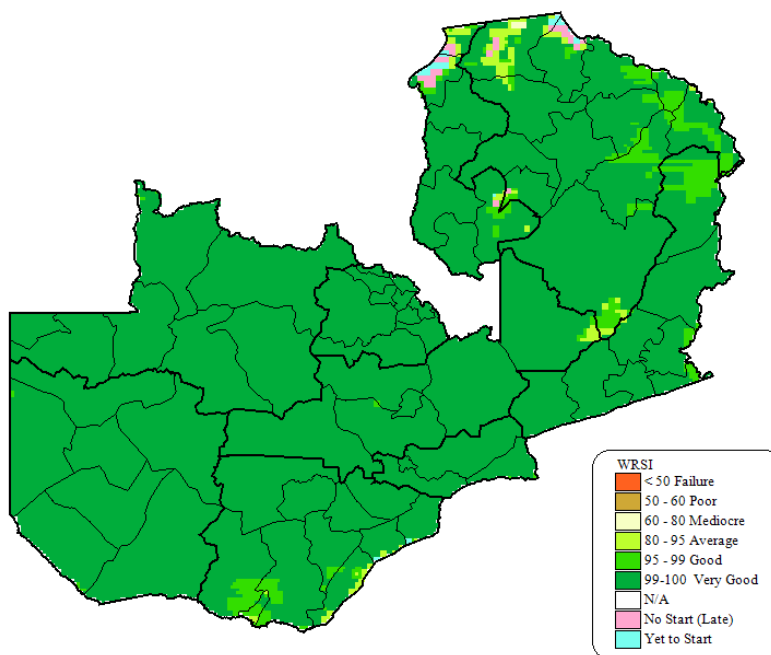


Figure 6: Water Requirement Satisfaction Index (WRSI) for Maize
at 10th February, 2017

Table 1

Dekad Rainfall and Rain Days Summary Analysis							
Period: 11 - 20. February 2017				Issue No: 07		Season 2016/17	
Station	Observed Rainfall	Rain Days (≥ 0.5 mm)	Since 1st July 2016		30 year (1981-2010) Normal Rainfall	Rainfall Departure	Rainfall Departure
			Dekad Normal	Cumulative Rainfall			
Kabompo	183	9	64	1009	727	282	39
Kasempa	139	8	67	879	768	111	14
Solwezi	104	7	81	1095	924	171	19
Zambezi	69	6	56	809	755	54	7
Kawambwa	122	7	65	824	802	21	3
Mansa	49	5	74	805	807	-2	0
Kasama	31	6	87	763	850	-87	-10
Misamfu	89	6	91	611	839	-228	-27
Isoka	86	3	81	928	691	237	34
Mpika	136	4	72	477	744	-267	-36
kafironda	70	4	91	641	952	-311	-33
Ndola	88	8	86	976	888	89	10
Kaoma	117	5	56	866	647	219	34
Mongu	106	3	65	941	680	261	38
Senenga	101	6	44	844	535	309	58
Sesheke	31	4	42	641	478	163	34
Kabwe agro	21	6	63	725	686	39	6
Serenje	144	8	79	774	760	14	2
Lusaka city	21	3	52	849	629	220	35
Mt Makulu	80	6	67	781	655	126	19
Chipata	73	7	74	840	804	36	4
Lundazi	52	3	65	613	591	22	4
Mfuwe	64	4	50	754	572	182	32
Msekera	121	7	60	883	708	175	25
Petauke	103	6	65	943	712	231	32
Chipepo	43	5	66	835	557	278	50
Choma	52	7	53	543	579	-37	-6
Kafue polder	22	5	41	632	505	127	25
Magoye	98	6	44	833	564	269	48
Livingstone	33	3	39	838	488	350	72