Republic of Zambia
Ministry of Green Economy and Environment
Zambia Meteorological Department
Period: 21st – 31st December 2025 **Issue No. 05** **Season: 2025/2026**

Agro Meteorological Bulletin

Highlights

WEATHER UPDATE

- **Above Normal rainfall** recorded in most parts of Zambia;
- **Soil moisture sufficient** (50% to 90%) in most parts of the country;
- Forecast indicates **sufficient rainfall** across Zambia from 1st to 10th January, 2026 except for western Province;
- **Flash floods and Flooding** likely to occur in flood prone areas during the forecast period.

ACTION ITEMS FOR CROP FARMERS

- **Establish drainage channels** to help reduce leaching and at the same time top dress while observing rainfall pattern;
- **Inspection of pest** in the fields to continue (For Cereal- Maize take note of increased presence of **Fall Army worm** and take remedial action);
- To avoid erosion, you can **intercrop** your fields.

ACTION ITEMS FOR FISH FARMERS

- **Raise & Reinforce Pond Dykes** in areas where rainfall can be intense, increase dyke heights by at least 30 cm above expected peak water levels;
- **Install & Maintain Effective Drainage Systems -** Desilt pond inlets and outlets to prevent waterlogging;
- **Secure Inlet & Outlet Structures -** Install wire mesh screens (5 mm – 10 mm) on inlet and outlet pipes to prevent fish from escaping;
- **Lower Water Levels Before Heavy Rains -** In high rainfall regions gradually reduce pond water levels by 20% – 30%;
- **For any further information**, farmers can contact their local District Agricultural Coordinator's (**DACO**) office, District Fisheries and Livestock Coordinator's Office (**DFLC**) or Ministry of Agriculture field officers or Department of Fisheries extension staff.

ACTION ITEMS FOR LIVESTOCK FARMERS

- Cattle farmers are advised to ensure that cattle are dipped or sprayed against ticks to **prevent tickborne diseases** weekly;
- Goat famers urged to **look out for signs of footrot** such as limping;
- Treat all goat wounds found on hooves with Copper Sulphate.

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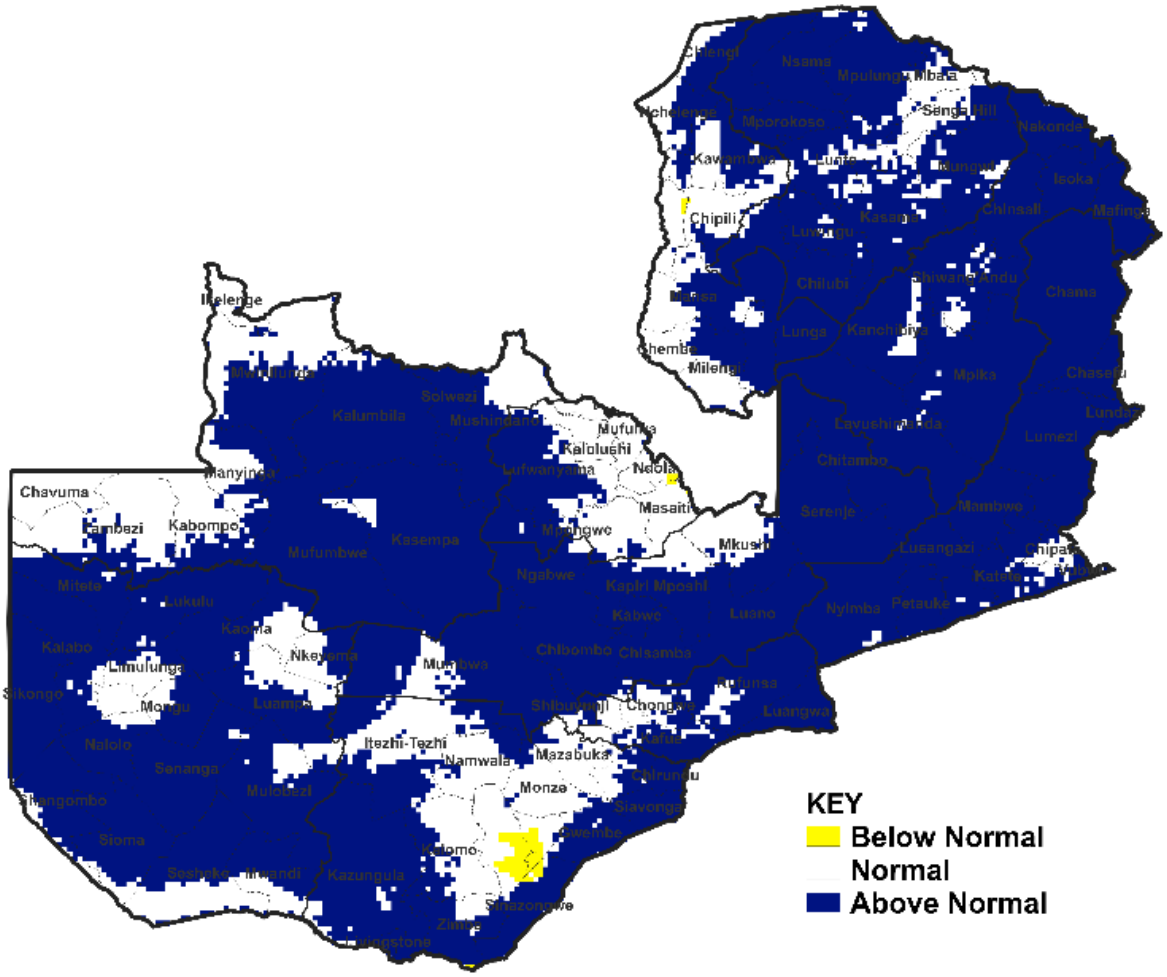

Figure 1: Rainfall Departure from the Normal
Period: 1st October to 31st December, 2025

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RAINFALL PERFORMANCE

Dekadal Rainfall performance

Period:21st – 31st December, 2025

The period from 21st to 31st December was characterized by a slight reduction in rainfall due to the ITCZ drifting northwards and oscillating about the Northern and Central parts of Zambia. According to reports from Meteorological stations, the highest rainfall was recorded at Mpulungu with 305 mm, followed by Mbala with 258 mm. Other high amounts were recorded at Msekera with 218mm, Chipepo 214mm and Lundazi 207mm. The rest of the stations reported rainfall amounts of less than 200mm, with the lowest of 43 mm recorded at Kabompo.

Spatial Rainfall Analysis

Rainfall exceeding 120 mm (green shades) was mainly observed over the eastern parts of the country and the extreme northern regions, with additional pockets in the northern parts of North-Western Province, the southern parts of Central Province, and the eastern parts of Lusaka Province. Isolated high rainfall amounts were also recorded in parts of Southern Province, particularly around Gwembe and Sinazongwe districts. In contrast, Western Province, most parts of Southern Province, and the Copperbelt Province generally received lower rainfall totals ranging between 30 and 120 mm ***(See figure 2 & Table 1).***

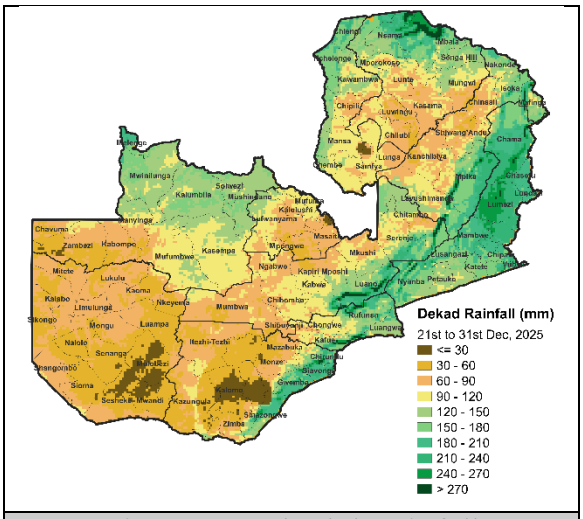

Figure 2: Dekadal Rainfall
21st to 31st December, 2025

Dekadal Rainfall Anomaly:

Period:21st – 31st December, 2025

The dekadal rainfall anomaly indicates surplus rainfall of more than 50 mm (green shades) across most parts of the country. However, Western and Copperbelt Provinces, much of Southern Province, the western parts of Muchinga and southern parts of Northern Provinces experienced rainfall deficits ranging from 35 mm to 75 mm (***See figure 3 & Table1***).

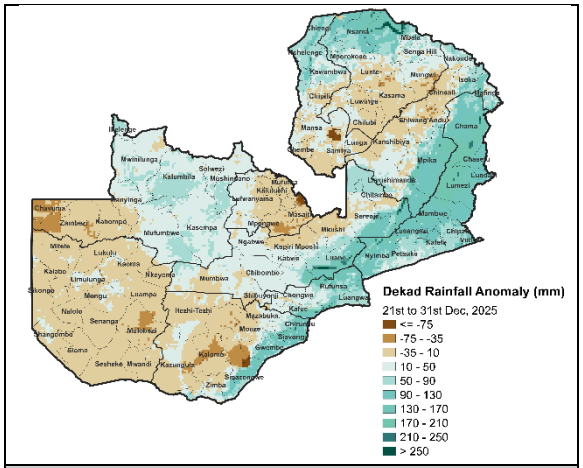

Figure 3: Dekadal Rainfall Anomaly
21st to 31st December, 2025

Rain-days:

Period: 21st – 31st December, 2025

The rainfall distribution for the period 21st to 31st December, 2025, indicates

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that most areas recorded more than 6 rain days with the highest of 11 days recorded Chipata. Other stations with a high number of rain days include Misamfu, Mansa, Chinsali, Isoka, Mfuwe and Serenje, each recording 10 rain days (***See figure 4 & Table1***).

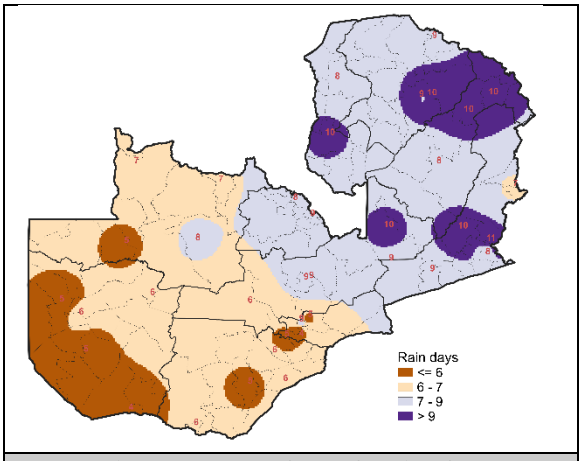

Figure 4: Number of Rain days
21st to 31st December, 2025

Cumulative Rainfall since start of season

Period: 1st October – 31st December, 2025

Since the start of the season, most areas across the country have received rainfall cumulative rainfall totals exceeding 420 mm (green shades), except for a few places, including parts of Southern, Western, and Copperbelt Provinces, which have so far recorded rainfall totals in the ranging from 260 to 420 mm (***See figure 5 & Table 1***).

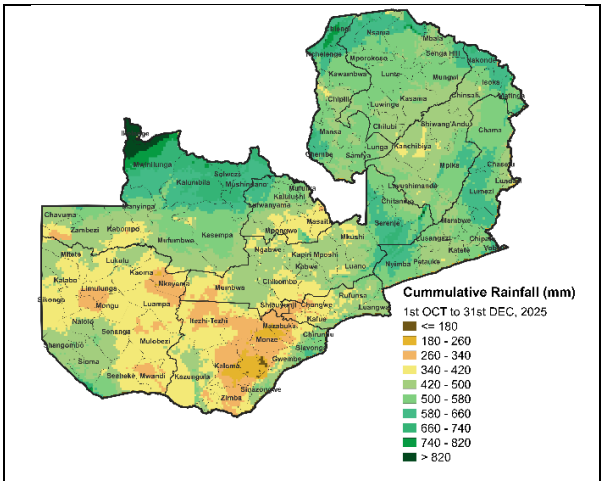

Figure 5: Cumulative Rainfall
1st October to 31st December, 2025

Rainfall Departure:

Period: 1st October to 10th December 2025

As of 31st December, 2025, rainfall departure from average predominantly indicates above normal conditions across most parts of the country, with normal conditions observed in parts of Western, Copperbelt, and Southern Provinces. Isolated below-normal rainfall has been recorded in areas around Gwembe and Sinazongwe districts.

Station performance indicates surplus rainfall amounts exceeding 45 mm (green shades) in most parts of the country. However, a few areas in parts of Southern, Western and Copperbelt Provinces show minor deficits, mainly ranging between 20 mm and 80 mm. The highest surplus amounts were observed in parts of Eastern and North-western Provinces, ranging between 285mm and 345mm ***(See Figure 1, 6 & Table 1).***

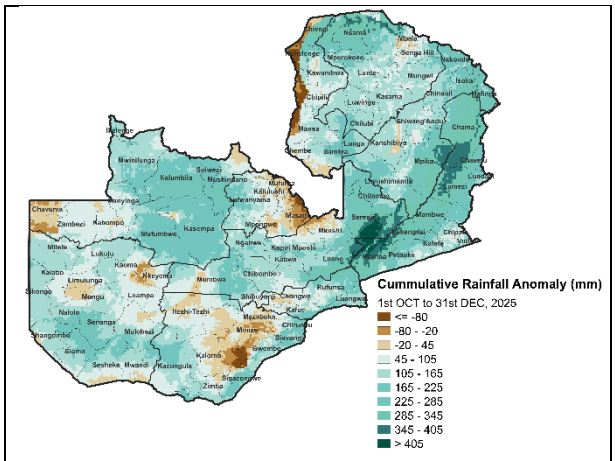

Figure 6: Rainfall Anomaly
1st October to 31st December, 2025

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10-DAY WEATHER FORECAST

General Situation

21st to 31st December, 2025

There is more than 75% chance of receiving over 50 mm of rainfall over Copperbelt, Eastern, Luapula, Muchinga and Northern Provinces, including the northern parts of Northwestern and the western parts of Central provinces, while the rest of the country will have less than 8% likelihood of receiving 50 mm during the forecast period.

Detailed Forecast:

Period: 1st to 6th January, 2026

COPPERBELT, EASTERN, LUAPULA, MUCHINGA AND NORTHERN PROVINCES INCLUDING THE NORTHERN PARTS OF NORTHWESTERN AND THE WESTERN PARTS OF CENTRAL PROVINCES:

MORNINGS: Mainly cloudy, with isolated rain and occasional thunder. Temperature will be mild to warm ranging between 10°C and 21°C.

Afternoons: Mainly cloudy, with rain and Thunder. Maximum temperature will be warm ranging from 22°C to 31°C

Nights: Partly cloudy tending to be mainly cloudy in some areas, slightly windy and mild with isolated rain and occasional thunder

LUSAKA, SOUTHERN AND WESTERN PROVINCES INCLUDING THE SOUTHERN PARTS OF NORTHWESTERN AND THE EASTERN PARTS OF CENTRAL PROVINCE:

MORNINGS: Few clouds, becoming partly cloudy by late morning, with a chance of isolated rain. Minimum temperature will be warm ranging from 14°C to 22°C.

AFTERNOONS: Mainly cloudy, with isolated showers and thunderstorms. Maximum temperature will be warm to hot ranging from 25°C to 34°C.

NIGHTS: Partly cloudy, slightly windy and mild with a chance of isolated rain.

Period: 7th to 10th January, 2026

COPPERBELT, EASTERN, LUAPULA, LUSAKA, MUCHINGA AND NORTHERN PROVINCES INCLUDING THE WESTERN PARTS OF CENTRAL PROVINCE:

MORNINGS: Mainly cloudy, with isolated rain and occasional thunder. Temperature will be mild to warm ranging between 11°C and 21°C.

AFTERNOONS: Mainly cloudy, with rain and Thunder. Maximum temperature will be warm to hot ranging from 22°C to 32°C

NIGHTS: Partly cloudy tending to be mainly cloudy in some areas, with isolated rain and occasional thunder.

NORTHWESTERN, SOUTHERN AND WESTERN PROVINCES INCLUDING EASTERN PARTS OF CENTRAL PROVINCES:

MORNINGS: Partly cloudy, with a chance of isolated rain. Temperature will be mild to warm ranging between 14°C and 22°C.

AFTERNOONS: Mainly cloudy, with isolated rain and thunderstorms. Maximum temperature will be warm to hot ranging from 24°C to 34°C

NIGHTS: Partly cloudy tending to be mainly cloudy in some areas, slightly windy and mild with isolated rain and occasional thunder

The forecast rainfall map for the period 1st to 10th January, 2026 indicates that Western Province is anticipated to receive rainfall amounts ranging between 39mm to 57mm, while Southern and Lusaka is forecast to receive rainfall amounts greater than 76 mm. The northeastern parts of the country are expected to receive rainfall

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exceeding 94 mm, with Luapula and Northern provinces anticipated to receive the highest rainfall reaching as high as 150 mm ***(See figure 7)***.

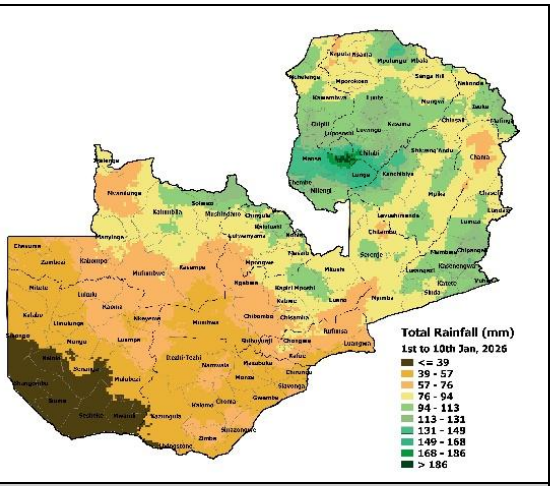

Figure 7: Forecast Rainfall
1st to 10th January, 2026

The forecast anomaly map, which compares the expected rainfall to the long-term average (30-year Period) rainfall expected during the period 1st to 10th December, 2025, indicate that the north-eastern half of the country is anticipated to receive above-average rainfall. Areas shaded in green are expected to record more than 28 mm above their long-term mean, while the darker green areas are likely to receive more than 65 mm above average. Meanwhile, the south-western half of the country is expected to record a rainfall deficit. Areas shaded light to dark brown are expected to record deficits of up to 8mm below average, with some areas in Western Province likely to record deficits exceeding 21 mm below the long-term mean ***(See figure 8)***.

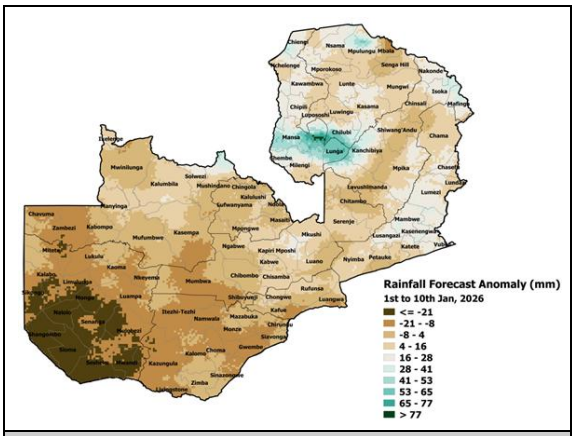

Figure 8: Forecast Rainfall Anomaly
1st to 10th January, 2026

AGRO-METEOROLOGY CONDITIONS

Soil Water Index

The soil water index as of 31st December 2025 indicates satisfactory conditions (50–90%) across most parts of the country. However, a few areas, such as the western parts of Lusaka Province and the southernmost districts of Southern Province, including Mambwe, Chama, Senga Hills, and Nakonde, show moisture stress (10–50%). Districts such as Mwinilunga and Ikeleng'e indicate saturated soil moisture (90–100%) ***(See figure 9).***

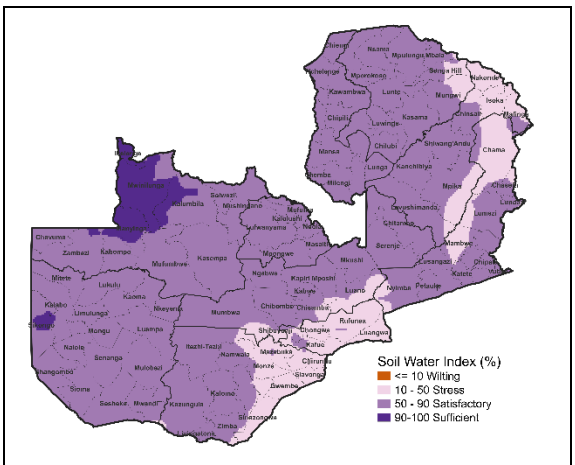

Figure 9: Soil Water Index
As of 31st December, 2025

The forecast for the next 10 days indicates sufficient rainfall in most parts of Zambia, except for areas that are anticipated to received less rainfall. This

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is likely to reduce existing soil moisture over western Zambia, while other areas are expected to experience increased soil moisture, potentially raising the risk of flooding ***(See figures 7, 8 and 9).***

The Soil Water Index quantifies the moisture conditions at various depths in the soil and is mainly driven by rainfall infiltration, penetration and surface water evaporation processes.

Advisories on crops

Establish drainage channels to help reduce leaching and at the same time top dress while observing rainfall patterns. This is activity is important as it stops waterlogging which can cause crop roots to rot. The result could be reduced yield.

When the flow of water is controlled, it limits the loss of nutrients by leaching. With the drainage management, fertilizer will be managed properly.

Inspection of pest in the fields to continue (For Cereal- Maize take not of increased presence of Fall Army worm and take remedial action).

Farmers should regularly inspect their maize fields to check for signs of FAW infestation

To avoid erosion, you can intercrop your fields. Intercropping will help reduce soil erosion and consequently improve soil structure. It also helps to reduce pests as some intercrop help disrupt pest movement.

Advisories for Fisheries

Raise & Reinforce Pond Dykes

In areas where rainfall can be intense, increase dyke heights by at least 30 cm above expected peak water levels.

Use laterite or compacted clay soils for reinforcement, as sandy soils are prone to erosion.

Plant vetiver grass or Napier grass on embankments to stabilize soil and prevent washouts.

Install & Maintain Effective Drainage Systems

Desilt pond inlets and outlets to prevent waterlogging.

Construct emergency spillways lined with concrete or stones to guide excess water safely away from ponds.

Use contour trenches and drainage ditches, especially in hilly areas to prevent runoff from overwhelming ponds.

Secure Inlet & Outlet Structures

Install wire mesh screens (5 mm – 10 mm) on inlet and outlet pipes to prevent fish from escaping.

In areas prone to floating debris, clear blockages frequently to prevent overflow.

Lower Water Levels Before Heavy Rains

In high-rainfall regions gradually reduce pond water levels by 20–30%

Advisories on livestock

Cattle: Farmers should ensure that cattle are dipped or sprayed against ticks to prevent tickborne diseases weekly.

Goats: Famers keeping goats should check if goats are limping; this is a sign of footrot. Treat all goat wounds found on hooves with Copper Sulphate.

Stay updated on the latest weather forecasts and adjust farming practices accordingly.

For any unusual strange insects or disease on crops, report to the nearest Agricultural Office in your area.

For any further information, farmers can contact their local District Agricultural Coordinator's (**DACO**) office, District Fisheries and Livestock Coordinator's Office (**DFLC**) or Ministry of Agriculture field officers or Department of Fisheries extension staff.

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Table 1:

Period: 21 – 31 December, 2025				**Issue No:** 05				**Season:** 2025/2026
Station	**Dekad Observations**			**Total Since 1st July 2025**				
	Rainfall (mm)	**Rain-days (>=1mm)**	**Normal Dekadal Rainfall (mm)**	**Cumulative Rainfall (mm)**	**Cumulative Rain-days**	**Normal Cumulative Rainfall (mm)**	**Rainfall Departure (mm)**	**Percentage Departure (%)**
Northern Province								
Mbala	258	9	94	750	29	370	380	103
Kasama	93	9	104	500	34	427	73	17
Misamfu	256	10	93	671	35	402	269	67
Mpulungu	305	8	94	641	29	370	271	73
Luapula Province								
Kawambwa	83	8	65	520	39	460	60	13
Mansa	124	10	86	469	37	390	78	20
Muchinga Province								
Mpika	110	8	85	481	30	338	143	42
Isoka	109	10	92	425	30	295	131	44
Chinsali	161	10	92	484	34	295	190	64
Copperbelt Province								
SMKIA	61	9	99	545	39	418	128	31
Kafironda	98	8	83	554	38	434	120	28
North-Western Province								
Mwinilunga	98	7	91	658	48	525	133	25
Kasempa	155	8	66	672	43	383	289	76
Solwezi	180	7	107	767	43	489	278	57
Kabompo	43	5	67	568	39	339	229	67
Eastern Province								
Msekera	218	8	84	566	40	319	248	78
Chipata	189	11	95	577	35	367	210	57
Lundazi	207	7	54	445	27	223	222	100
Mfuwe	87	10	50	336	27	252	84	33
Petauke	108	9	69	526	33	292	234	80
Central Province								
Serenje	100	10	80	494	32	315	179	57
Mkushi	171	9	62	640	44	310	330	100
Mumbwa	79	6	85	447	28	247	200	81
Kabwe Agro	84	9	81	356	38	324	31	10
Kabwe Met	102	9	81	551	36	324	226	70
Lusaka Province								
KKIA	88	5	71	282	25	285	-3	-1
Lusaka City	140	9	66	395	34	269	126	47
Mt Makulu	70	4	65	298	30	297	1	0
Western Province								
Kalabo	50	5	54	293	31	238	55	23
Mongu	99	6	68	486	36	308	177	57
Kaoma	96	6	70	380	36	317	64	20
Senanga	75	5	53	622	42	256	366	143
Sesheke	53	4	50	293	26	230	63	27
Southern Province								
Kafue Polder	48	5	56	258	21	230	28	12
Livingstone	28	6	54	295	35	230	66	29
Magoye	63	6	67	307	24	265	42	16
Choma	64	5	53	268	21	269	-1	0
Chipepo	214	6	73	424	19	239	185	78

The Agrometeorological Bulletin is a collaborative production of the Ministry of Agriculture, Ministry of Fisheries and Livestock and the Ministry of Green Economy and Environment.

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