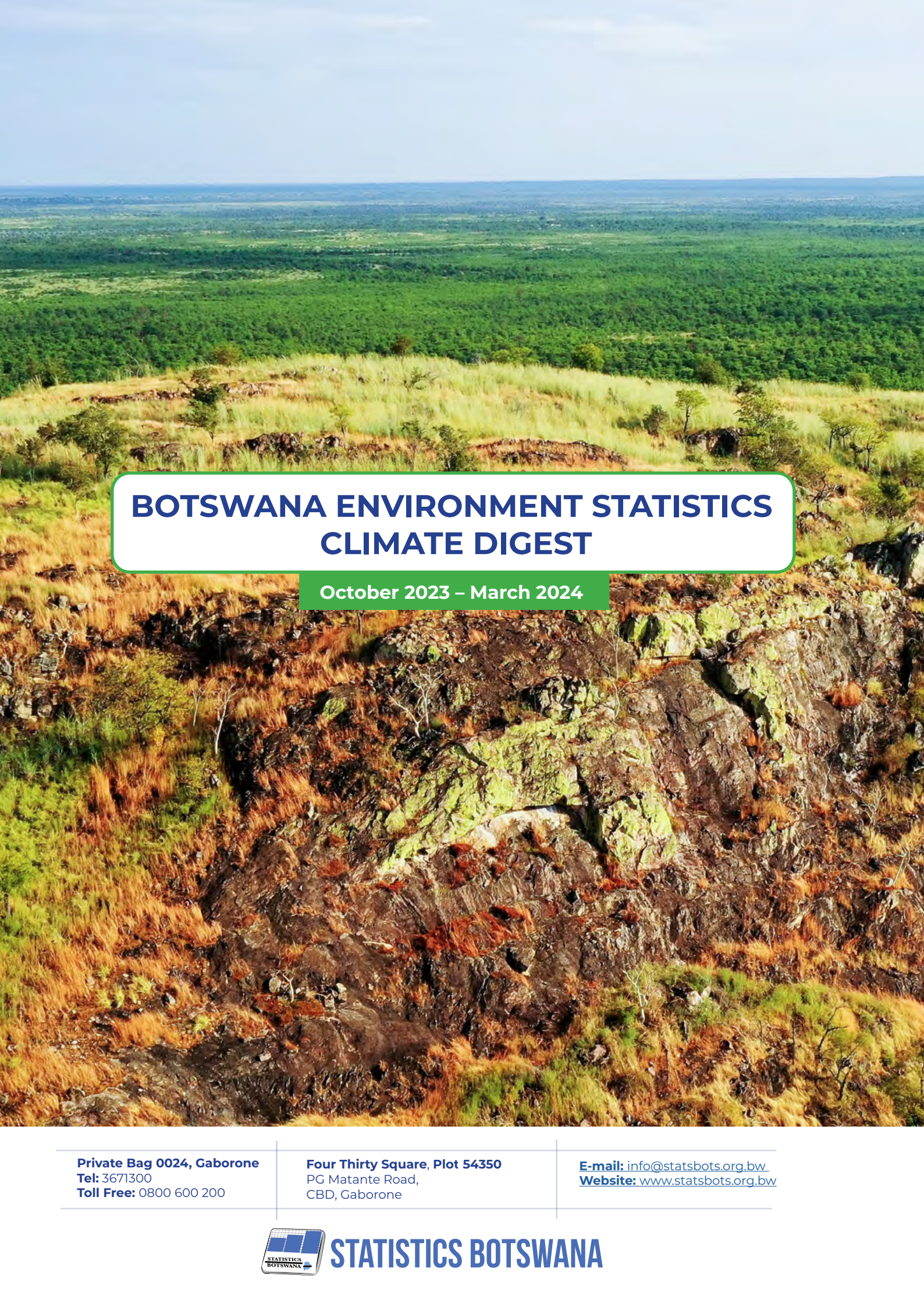




BOTSWANA ENVIRONMENT STATISTICS CLIMATE DIGEST

October 2023 – March 2024

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STATISTICS BOTSWANA

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Published by

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July 2026

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PREFACE

This report is the first edition of the biannual climate statistics digest for the year 2023/24. The report represents Statistics Botswana's continued progress focused on the monitoring of climate statistics, and the availing of data for climate trend analysis. The indicators covered in this report are guided in part by the United Nations Framework for the Development of Environment Statistics (UNFDES).

Climate statistics are useful for trends analysis and review of climate related performances in human livelihoods, health, social and economic activities. All aspects of life are affected directly by climate, which is the core determining factor of how people and other organisms live and interact on planet earth. Climate determines food availability and the habitability of regions and environments. Extreme climate events are recorded and monitored for better understanding and planning to ensure minimum casualties and disturbances to lives, as well as for adaptation strategies to climate change phenomena. Statistics Botswana strives to facilitate informed planning and decision making through trends analysis and climate statistics reporting in these submissions.

I would like to extend my gratitude and appreciation to stakeholders and data providers, particularly the Department of Meteorological Services and Southern African Science Service Centre for Climate Change and Adaptive Land Management (SASSCAL) whose contributions were invaluable in the production of this Digest.

For more information and further enquiries, contact the Directorate of Stakeholder Relations at **367 1300**. All Statistics Botswana outputs/publications are available on the website at **www.statsbots.org.bw** and at the Statistics Botswana Resource Centre (Head-Office, Gaborone).



Dr Khaufelo Raymond Lekobane
Statistician General
July 2026

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EXECUTIVE SUMMARY

The period under review in this digest is the warm and wet season of October 2023 to March 2024. Mahalapye received the highest amount of total monthly rainfall in December 2023, measured at 165.7 mm, followed by Sowa at 156.4 mm, during the month of January 2024, and Werda, which received 139 mm of rainfall during the month of December 2023. Mahalapye was the wettest area having received 424.6 mm of rainfall, followed by Pandamatenga at 319.9 mm and Shakawe at 299.8 mm of rainfall received during this six-month period.

The lowest mean monthly temperature was 14.8°C at Werda, followed by 15.4°C at Goodhope and 16.2°C at Tshane, all recorded during the month of October 2023.

During the period from October 2023 to March 2024, the highest mean monthly maximum air temperature was recorded at Tubu, reaching 41.7°C in October 2023. This was followed by 40.4°C in November 2023 and 40.1°C in March 2024. The highest daily temperature was recorded at Tubu at 43°C during October and November 2023, as well as in March 2024.

The strongest winds were in Lephephe, with a mean monthly maximum wind speed of 7.44m/s during December 2023, followed by a speed of 7.19m/s during November 2023, still at Lephephe and Ghanzi at 7.16m/s in December 2023. The lowest mean monthly maximum wind speeds were recorded at Baines Drift at 0.98m/s in January, followed by 1.01m/s in February and 1.66m/s in March 2024.

The highest wind speed recorded was 13.6 m/s in March at Lephephe, followed by 13.2m/s still at Lephephe in January and lastly 13.2m/s at Goodhope in December 2023.

The highest predominance is that of Baines drift where 67.7 percent of the winds were from the east north east direction, followed by Lephephe, where 54.6 percent of the winds were from the south and Mahalapye where 38.8 percent of the winds were from the north east direction.

Nationally, winds were predominantly from north east 21.1 percent of the days in December 2023, followed by predominance of 20.9 percent from east north east in November 2023 and 19.6 percent from the east north east in March 2024.

The highest predominance by maximum wind speed is that for Lephephe with 55.7 percent of the days recording strongest winds blowing from the South, followed by Baines Drift with 51.3 percent of the days recording strongest winds blowing from east north east and Mahalapye, where 33.9 percent of the winds blew from north east.

The strongest winds recorded across the country during the period predominantly blew from the north-east, accounting for 17.9% of the days in November 2023. This was followed by east-northeast winds, which occurred on 17.8% of the days in March 2024 and 17.6% of the days in October 2023. Overall, the strongest winds blew from east north east at 16.0 percent of the days, followed by north east at 14.3 percent, and east at 11.0 percent of the days.

The highest mean monthly relative humidity was 73.0 percent in January 2024 at Shakawe, followed by 69.8 percent for Tubu in January 2024 and the third highest average monthly relative humidity was 67.3 percent for Baines drift in January 2024. The lowest mean monthly relative humidity was 22.7 percent in October 2023 at Ghanzi, followed by 24.8 percent in October 2023 at Tshane and 25.6 percent in October 2023 at Werda.

January had the highest relative humidity average for all stations during the six (6) month period. Highest relative humidity extremes were reached during the months of December 2023 and January 2024. The lowest humidity extremes were recorded during October 2023.



1. INTRODUCTION

Over long periods of time conditions of the atmosphere change, and this affects human livelihoods in different ways, either directly through health or indirectly through human activities such as economic or agricultural practices.

Climate monitoring is very important as climate affects almost every aspect of our lives. With a better understanding of a long-term pattern of weather conditions and its impacts, governments and decision makers are able to define and implement appropriate mitigation and adaptation policies. Botswana is climatically classified as arid to semi-arid and is drought prone, with highly erratic rainfall that ranges from 250mm in the South East to around 650mm in the north.

2. RAINFALL

The period under study is the wet season and is characterised by warm and hot temperatures.

2.1 Monthly Rainfall

Table 1 shows the total rainfall in millimetres (mm) for the stations that had data.

Table 1: Total Monthly Rainfall in (mm) October 2023 to March 2024

Stations	October	November	December	January	February	March
Shakawe	4.2	64.0	108.2	59.0	49.2	15.2
Panda	6.6	37.1	134.1	109.6	5.8	26.7
Sowa	3.0	0.2	100.3	156.4	8.0	1.6
Ghanzi	2.3	51.5	84.3	41.3	7.9	65.3
Mahalapye	0.0	0.0	165.7	126.3	5.1	127.5
Lephephe	23.0	17.8	33.3	58.1	9.8	44.4
Tshane	3.0	38.4	106.6	74.3	10.7	10.5
Werda	1.0	46.4	139.0	15.0	26.3	21.6
Goodhope	24.9	50.0	98.0	74.4	19.4	26.0

Source : Department of Meteorological Services

According to **Table 1**, Mahalapye recorded the highest total monthly rainfall of 165.7 mm in December 2023. This was followed by Sowa, which received 156.4 mm of total monthly rainfall in January 2024, and Werda, which recorded 139.0 mm in December 2023.

2.2 Total Rainfall

Table 2 shows the total rainfall received by the stations from October 2023 to March 2024. Mahalapye was the wettest area having received 424.6 mm of rainfall, followed by Pandamatenga at 319.9 mm and Shakawe at 299.8 mm of rainfall received during this six-month period.

Table 2 : Total Rainfall (mm) By Station (October 2023 to March 2024)

Stations	Total Rainfall (mm)
Mahalapye	424.6
Pandamatenga	319.9
Shakawe	299.8
Goodhope	292.7
Sowa	269.5
Ghanzi	252.6
Werda	249.3
Tshane	243.5
Lephephe	186.4

Source : Department of Meteorological Services

Computation of total rainfall received during the period from October 2023 to March 2024 for Jwaneng, SSKIA, Kasane , Selebi Phikwe, Letlhakane, Maun, Francistown and Ncojane stations were not carried out as data was insufficient due to the stations being inactive for a long time, leading to no data captured during some months.

3. TEMPERATURES

Botswana's diurnal temperature is high, and this is normal for semi-arid and arid climates. The temperatures also vary spatially, with extremes common in the north-eastern and the south-western regions of the country.

3.1 Minimum Air Temperatures

Table 3 shows the mean monthly minimum air temperatures in degrees Celsius (°C). In Botswana the period from October to March is characterised by spring and summer temperatures

Table 3: Mean Monthly Minimum Air Temperatures (°C) (October 2023 to March 2024)

Station	October	November	December	January	February	March
Shakawe	19.4	20.9	20.9	19.2	19.8	-
Mababe	22.4	23.8	-	-	-	-
Tubu	25.1	26.8	22.7	19.9	25.5	25.6
Sowa	20.3	22.4	21.2	20.5	20.9	21.2
Ghanzi	17.7	20.2	20.3	19.8	21.7	19.9
Baines Drift	17.8	20.4	20.3	19.2	20.9	21.4
Mahalapye	17.2	20.3	19.4	19.2	19.7	20.4
Lephephe	16.4	19.6	20.0	20.2	20.7	20.4
Tshane	16.2	19.7	20.4	20.3	21.0	19.3
Werda	14.8	18.4	19.5	20.0	19.2	17.9
Goodhope	15.4	18.2	18.4	18.4	19.5	18.6

Dash (-) = no data
Source: SASSCAL

The lowest mean monthly temperature was 14.8°C at Werda followed by 15.4°C at Goodhope and 16.2°C at Tshane, all recorded during the month of October 2023.

3.2 Maximum air temperatures

Table 4 shows the mean monthly maximum air temperatures for the period October 2023 to March 2024. The maximum air temperatures show the hottest parts of Botswana during the spring and summer seasons.

Table 4: Mean Monthly Maximum Air Temperatures (°C) (October 2023 to March 2024)

Station	October	November	December	January	February	March
Shakawe	38.2	36.1	33.1	31.8	36.0	-
Pandamatenga	36.8	-	21.5	-	-	-
Mababe	39.6	38.3	-	-	-	39.3
Tubu	41.7	40.4	38.0	36.4	39.6	40.1
Sowa	37.2	37.1	34.4	32.3	36.7	36.4
Ghanzi	36.2	35.5	34.7	33.3	37.2	35.0
Baines Drift	31.7	33.7	31.8	30.3	33.3	33.8
Mahalapye	32.7	33.3	32.5	30.7	34.5	33.5
Lephephe	34.4	34.7	34.7	32.9	36.0	34.6
Tshane	34.4	34.9	35.7	33.6	36.8	34.6
Werda	34.7	35.9	35.8	34.2	37.5	35.7
Goodhope	31.0	31.7	31.5	31.3	34.2	32.9

Dash (-) = no data

Source: SASSCAL

During the period from October 2023 to March 2024, Tubu recorded the highest mean monthly maximum air temperatures in the country. The highest value was 41.7°C in October 2023, followed by 40.4°C in November 2023 and 40.1°C in March 2024.

3.3 Maximum Temperature Extremes

Table 5 shows the highest maximum air temperatures recorded for the stations, during the period October 2023 to March 2024. The highest daily temperature was recorded at Tubu with 43°C during October and November 2023 as well as in March 2024.

Table 5. Highest Maximum Temperatures Recorded (°C) (October 2023 to March 2024)

Temperature (°C)	Month	Station
43.0	October	Tubu
43.0	November	Tubu
43.0	March	Tubu

Source - Sasscal

4. WIND SPEED AND DIRECTION

Wind is a physical quantity that represents the movement of air currents. It has a numerical magnitude (wind speed) and a direction (wind direction). Wind speed is measured in metres per second (m/s) while wind direction is expressed in degrees.

4.1 Mean Monthly Maximum Wind Speed

Table 6 shows the mean monthly maximum wind speed for the period October 2023 to March 2024.

Table 6 : Mean Monthly Maximum Wind Speed (m/s) (October 2023 to March 2024)

Station	October	November	December	January	February	March
Shakawe	5.30	5.62	4.86	4.38	4.37	4.44
Pandamatenga	5.71	5.30	5.35	-	4.76	5.14
Mababe	6.42	6.93	-	-	-	-
Tubu	5.77	5.44	5.23	4.22	4.64	4.92
Sowa	5.95	6.03	5.98	4.95	4.87	4.96
Ghanzi	6.42	6.44	7.16	6.50	6.61	6.39
Baines Drift	3.14	2.30	1.94	0.98	1.01	1.66
Mahalapye	6.60	6.39	6.59	5.47	5.76	5.86
Lephephe	6.82	7.19	7.44	6.74	6.38	6.56
Tshane	5.69	5.65	6.38	6.02	5.15	5.29
Werda	5.87	5.63	6.15	5.34	5.42	5.27
Goodhope	7.08	7.02	6.98	6.49	6.15	6.82

Source sasscal

The strongest winds were in Lephephe, with a mean monthly maximum wind speed of 7.44m/s during December and 7.19m/s in November 2023 respectively, while Ghanzi followed with a wind speed of 7.16m/s in December 2023. The lowest mean monthly maximum wind speeds were recorded at Baines Drift at 0.98m/s in January followed by 1.01m/s in February and 1.66m/s in March 2024.

4.2 Highest Wind Speed Recorded

Table 7 shows the highest wind speed recorded during the period of October 2023 to March 2024. The wind speed recordings are the highest recorded in a 24-hour period.

The highest wind speed recorded was 13.6 m/s in March 2024 at Lephephe followed by 13.2m/s for both Lephephe and Goodhope in January 2024 and December 2023 respectively. These wind speed recordings fall in the category of strong breeze on the Beaufort scale. (See Table 15 in Appendix).

Table 7: Highest Wind Speed Recorded Maximum Wind Speed (m/s) (October 2023 to March 2024)

Speed (m/s)	Beaufort Classification	Month	Station
13.6	Strong Breeze	March	Lephephe
13.2	Strong Breeze	January	Lephephe
13.2	Strong Breeze	December	Goodhope

4.3 Wind Direction

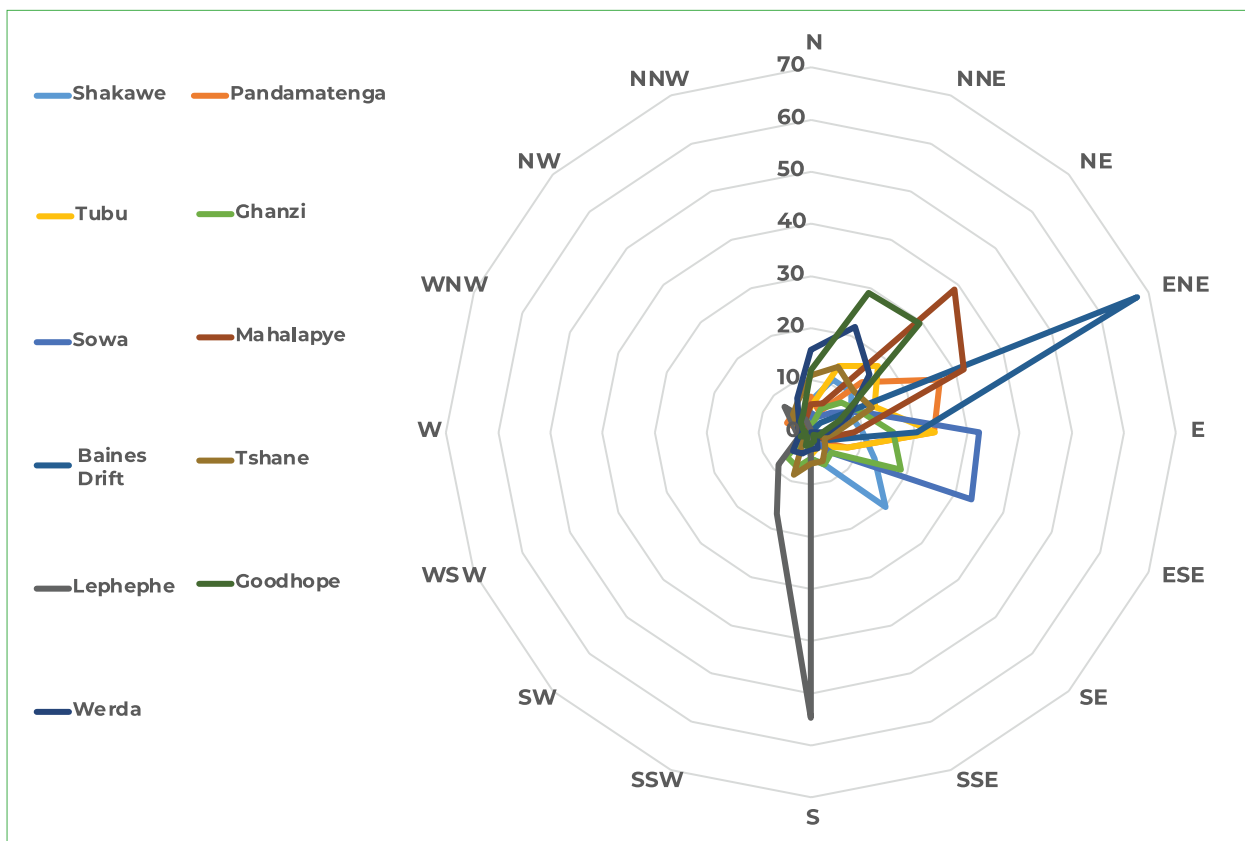
Table 8 shows the stations predominant wind direction as a percentage of the days recorded between the month of October 2023 and March 2024.

The highest predominance is that of Baines drift where 67.7 percent of the winds were from the east north east direction followed by Lephephe where 54.6 percent of the winds were from the south and Mahalapye where 38.8 percent of the winds were from the north east direction. **Figure 1** shows this graphically.

Table 8. Percentage of Predominant Winds by Station (October 2023 to March 2024)

Station	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total
Shakawe	6.0	10.9	10.9	8.2	9.8	13.1	20.2	6.6	4.9	1.1	0.5	0.5	1.6	1.6	2.2	1.6	100
Pandamatenga	6.8	4.3	13.7	26.7	23.6	7.5	2.5	0.6	1.2	0.6	0.0	0.0	1.2	5.0	5.0	1.2	100
Tubu	5.0	13.8	18.1	13.1	23.8	7.5	3.8	3.1	4.4	0.6	1.3	0.6	1.3	0.6	0.6	2.5	100
Sowa	3.8	3.3	5.5	10.4	32.2	33.3	5.5	1.6	0.0	0.5	0.0	0.5	0.5	0.5	1.1	1.1	100
Ghanzi	1.1	4.9	8.2	10.4	15.8	18.6	5.5	6.6	4.9	7.1	6.6	1.1	2.2	3.3	0.5	3.3	100
Baines Drift	0.6	0.0	2.5	67.7	20.3	3.8	1.3	0.6	0.6	0.0	0.6	0.6	0.0	0.0	0.0	1.3	100
Mahalapye	5.5	6.0	38.8	31.7	8.2	2.7	0.5	0.5	0.5	0.5	1.1	0.5	0.5	0.0	0.0	2.7	100
Lephephe	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	54.6	16.9	8.7	2.7	2.7	3.8	7.1	2.7	100
Tshane	10.9	13.7	11.5	12.6	4.9	2.7	3.8	6.0	6.0	8.7	2.2	1.6	1.1	2.7	4.9	6.6	100
Werda	15.8	21.9	15.8	7.7	3.3	0.0	1.6	3.3	3.3	4.4	4.9	2.7	2.2	2.7	3.3	7.1	100
Goodhope	12.0	29.0	29.5	6.0	2.2	1.6	0.5	1.6	2.2	2.7	1.1	2.2	1.1	1.6	2.7	3.8	100

Figure 1: Percentage of Predominant Winds by Station (October 2023 to March 2024)



4.4 National Wind Direction

Table 9 shows the country's wind direction for the period of October 2023 to March 2024 as a percentage of the total number of days for that period.

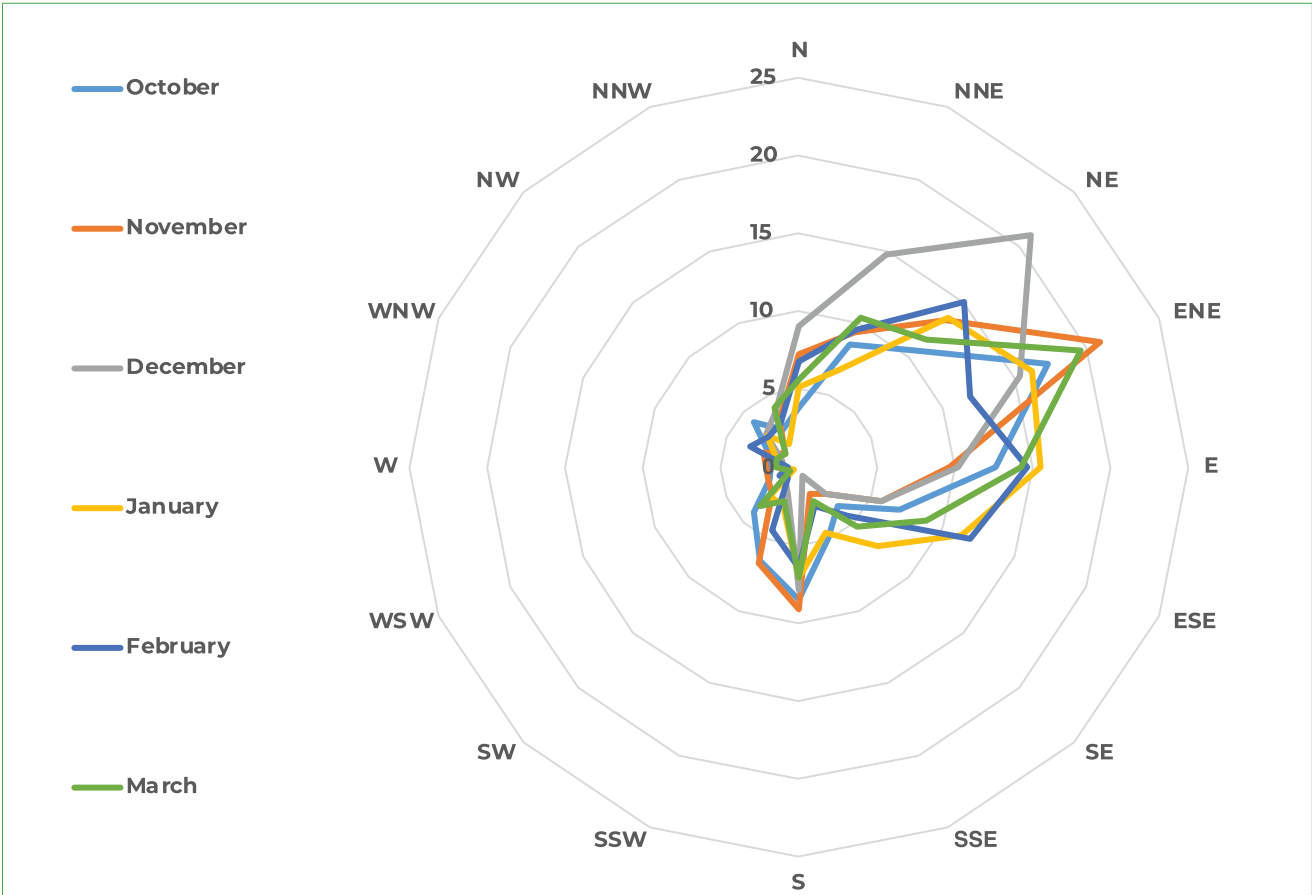
Nationally, winds were predominantly from north east 21.1 percent of the days in December 2023, followed by predominance of 20.9 percent from east north east in November 2023 and 19.6 percent from the east north east in March 2024. **Figure 2** shows the country's predominant winds graphically.

Table 9: National Wind Direction By Percentage of Days (October 2023 to March 2024)

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
October	3.8	8.5	10.6	17.3	12.6	7.0	3.5	5.0	8.5	6.5	4.1	2.1	1.8	2.1	4.1	2.6	100.0
November	7.3	9.4	13.3	20.9	9.7	5.8	2.4	1.8	9.1	6.7	2.4	2.1	2.1	2.4	1.2	3.3	100.0
December	9.0	14.8	21.1	15.4	10.2	5.7	2.4	0.6	7.8	1.8	1.2	0.9	0.9	1.2	3.0	3.9	100.0
January	5.2	6.8	13.6	16.2	15.5	11.3	7.1	4.5	7.1	2.6	2.6	0.3	1.0	1.6	2.9	1.6	100.0
February	6.8	9.5	15.0	11.9	14.6	11.9	4.4	2.7	6.5	4.4	1.0	1.4	0.7	3.4	2.7	3.1	100.0
March	5.6	10.4	11.6	19.6	14.2	8.9	5.3	2.4	7.1	2.4	3.6	0.6	1.5	1.5	1.2	4.2	100.0

Source: Sasscal Weather net

Figure 2: Monthly National Wind Direction by Percentage of Days (October 2023 to March 2024)



4.5 Maximum Wind Speed By Direction

Maximum wind speed by direction is the direction from which the maximum wind speed was moving and it indicates the direction of the strongest winds for the stations and the country.

Table 10 and **figure 3** show the percentage maximum wind speed directions for the stations, which is, a percentage of the number of days the recordings were taken during the period October 2023 to March 2024.

Table 10. Percentage Maximum Wind Speed Directions By Station (October 2023 to March 2024)

Station	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
Shakawe	2.2	4.9	12.6	14.2	12.0	9.8	12.6	9.8	2.7	6.0	0.5	4.4	2.2	1.1	3.3	1.6
Pandamatenga	1.2	5.0	13.0	26.1	20.5	6.2	5.0	2.5	1.9	2.5	2.5	0.0	2.5	1.9	4.3	5.0
Tubu	6.9	15.0	18.1	11.9	18.8	5.6	6.3	5.6	3.8	1.9	0.6	0.6	0.0	1.3	1.3	2.5
Sowa	2.2	2.7	11.5	16.9	15.8	23.5	7.1	4.4	1.1	0.5	3.8	2.2	3.3	1.1	1.6	2.2
Ghanzi	3.3	1.6	7.1	13.7	16.4	15.3	6.6	5.5	7.7	4.9	4.4	4.4	5.5	1.1	2.7	0.0
Baines Drift	1.3	2.5	13.9	51.3	21.5	3.2	1.3	0.0	1.3	0.0	1.3	0.0	1.3	1.3	0.0	0.0
Mahalapye	4.4	8.2	33.9	19.1	8.7	7.1	2.7	3.3	4.9	1.1	0.5	1.6	1.6	1.1	0.0	1.6
Lephephe	8.2	0.5	0.5	0.0	0.0	0.5	0.5	2.2	55.7	8.7	5.5	2.2	6.0	4.9	3.3	1.1
Tshane	8.7	4.9	9.3	11.5	4.9	3.8	4.4	4.4	4.9	5.5	6.6	3.8	8.2	6.0	4.4	8.7
Werda	11.5	18.0	10.4	8.2	3.3	2.2	2.7	3.8	1.6	2.7	7.7	5.5	4.9	3.3	3.8	10.4
Goodhope	2.7	19.1	27.9	9.8	2.7	2.7	1.6	1.1	1.6	3.3	5.5	8.2	3.8	3.8	4.9	1.1

Source: SASSCAL

The highest predominance by maximum wind speed is that for Lephephe with 55.7 percent of the days recording strongest winds blowing from the South, followed by Baines Drift with 51.3 percent of the days recording strongest winds blowing from east north east and Mahalapye, where 33.9 percent of the winds blew from north east.

Figure 3: Percentage Maximum Wind Speed Directions by Station (October 2023 to March 2024)

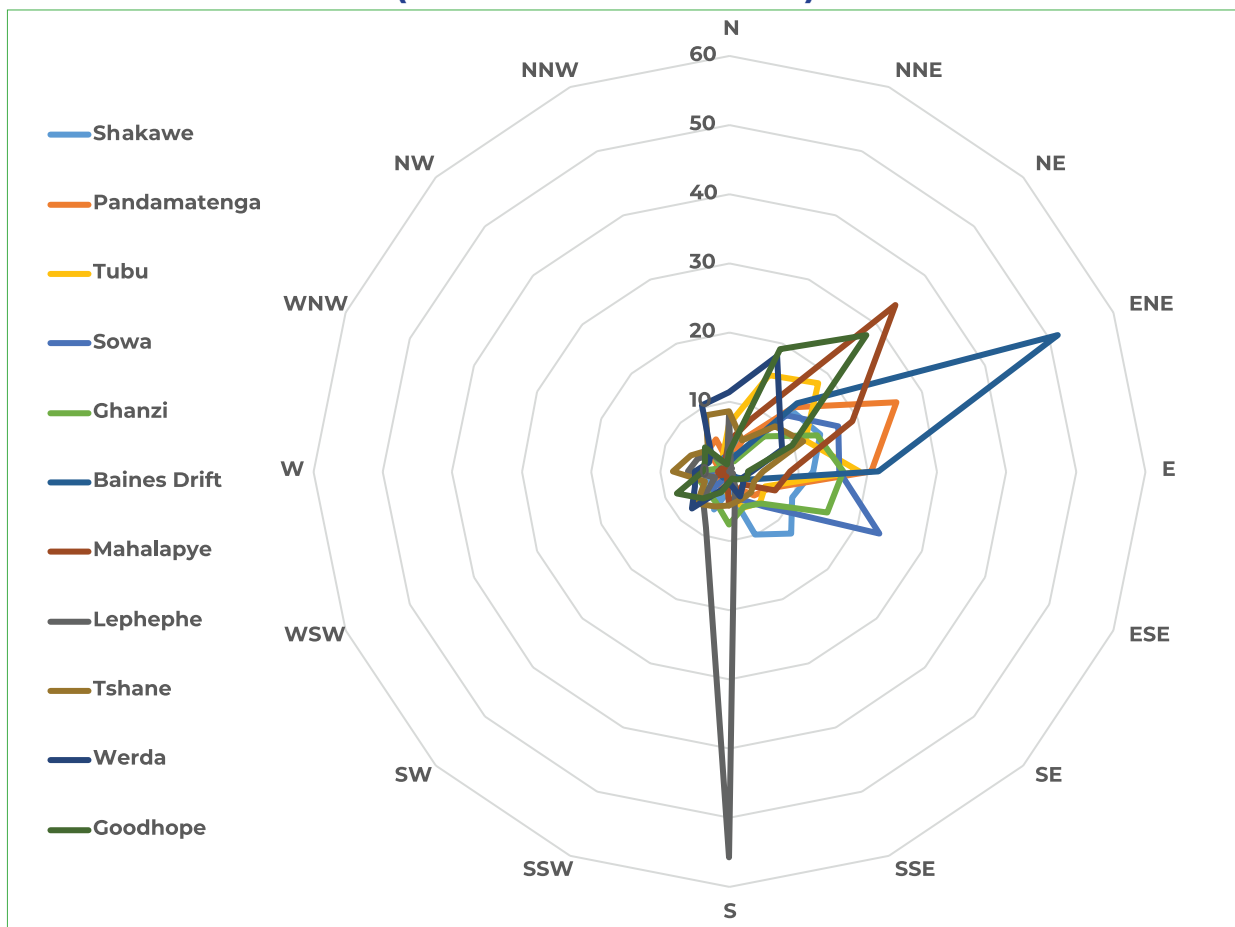


Table 11 and figure 4 show the maximum wind speed directions for the country as a percentage of the days recordings were taken by month, for the period October 2023 to March 2024.

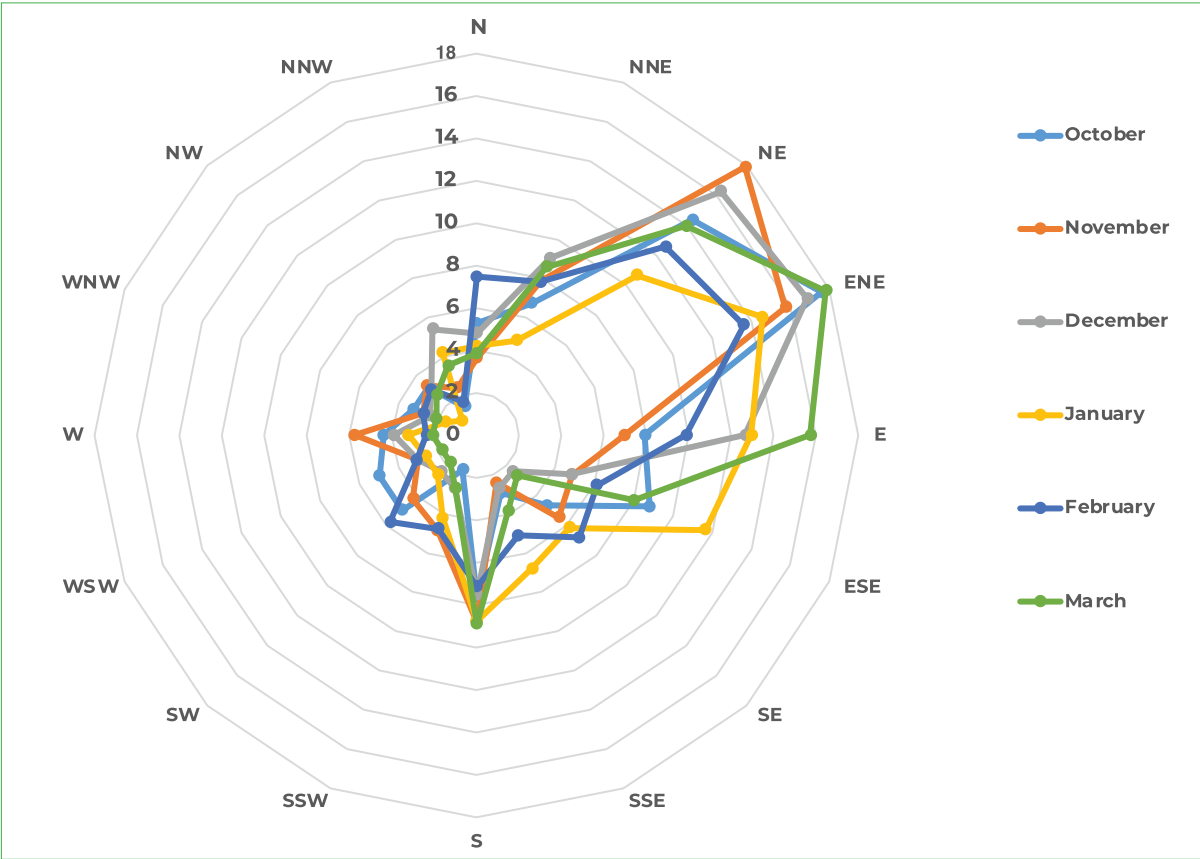
Table 11 : National Percentage Maximum Wind Speed Directions by Month (October 2023 to March 2024)

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
October	5.3	6.7	14.4	17.6	7.9	8.8	4.7	2.9	7.6	1.8	5.0	5.0	4.4	3.2	3.2	1.5	100
November	3.6	7.9	17.9	15.8	7.0	4.8	5.5	2.4	8.8	4.8	4.2	3.0	5.8	2.7	3.3	2.4	100
December	4.8	9.0	16.3	16.9	12.7	4.8	2.4	2.7	7.5	2.7	2.4	3.0	3.9	2.4	3.0	5.4	100
January	4.2	4.9	10.7	14.6	12.9	11.7	6.1	6.8	8.7	4.2	2.6	2.6	3.2	1.6	1.0	4.2	100
February	7.5	7.8	12.6	13.6	9.9	6.1	6.8	5.1	7.1	4.8	5.8	3.1	2.4	2.7	3.1	1.7	100
March	3.9	8.6	13.9	17.8	15.7	8.0	2.7	3.9	8.9	2.7	1.8	1.8	2.1	2.1	2.7	3.6	100

The strongest winds for each of the months for the country blew mainly from the north east 17.9 percent of the days in November 2023, followed by east north east at 17.8 percent of the days in March 2024 and the east north east at 17.6 percent of the days in October 2023.

Overall, the strongest winds blew from east north east at 16.0 percent of the days followed by north east at 14.3 percent, and east at 11.0 percent of the days.

Figure 4: National Percentage Maximum Wind Speed Directions by Month (October 2023 to March 2024)



5. RELATIVE HUMIDITY

Humidity is atmospheric moisture, it is a quantity representing the amount of water vapour in the atmosphere, while relative humidity (expressed as a percent) also measures water vapour, but relative to temperature of the air. A hundred percent relative humidity means that the air is saturated and the water vapour condenses into tiny water droplets while zero relative humidity mean that the air is dry. Humidity has an effect on human wellbeing through the prevalence of microorganisms that need moisture in the air, such as dust mites, which in turn can lead to allergies and disease such as asthma. Extremely low humidity can cause dryness of the eyes and the skin, exacerbating conditions such as eczema. Moreover, humidity determines how comfortable or uncomfortable the weather feels.

5.1 Mean Monthly Relative Humidity

Table 12: Average Monthly Relative Humidity By Percentage (October 2023 to March 2024)

Station	October	November	December	January	February	March	Station Average
Shakawe	31.1	51.4	67.2	73.0	52.3	-	55.0
Mababe	29.9	44.5	-	-	-	31.0	35.1
Tubu	28.6	45.0	64.0	69.8	52.9	50.3	51.8
Sowa	33.0	36.5	54.8	62.6	43.2	42.9	45.5
Ghanzi	22.7	42.0	52.1	57.8	39.3	46.4	43.4
Baines Drift	47.9	45.3	63.3	67.3	54.1	53.0	55.2
Mahalapye	41.1	45.9	55.1	66.1	51.9	50.9	51.8
Lephephe	34.1	42.9	48.7	58.6	46.4	46.7	46.2
Tshane	24.8	40.5	42.4	58.0	40.5	46.5	42.1
Werda	25.6	41.0	45.1	57.0	43.5	44.1	42.7
Goodhope	38.5	50.2	58.2	64.8	49.9	51.3	52.2
Station Average	32.5	44.1	55.1	63.5	47.4	46.3	47.4

Dash (-) = no data

Source: SASSCAL

The highest mean monthly relative humidity was recorded in January 2024 in Shakawe at 73.0 percent, followed by Tubu at 69.8 percent and Baines drift at 67.3 percent. The lowest mean monthly relative humidity was 22.7 percent at Ghanzi, followed by 24.8 percent at Tshane and 25.6 percent at Werda, all recorded in October 2023.

5.2 Highest Relative Humidity

Table 13 presents the highest monthly relative humidity recorded at each station during the period from October 2023 to March 2024.

Table 13: Highest Relative Humidity By Percentage

Station	October	November	December	January	February	March	Station Average
Shakawe	49.8	69.3	97.7	92.8	75.2	-	77.0
Tubu	56.3	77.7	92.8	91.7	85.5	85.5	81.6
Sowa	64.4	61.3	88.5	97.8	61.5	59.5	72.2
Ghanzi	56.1	75.5	79.6	78.3	59.0	90.3	73.1
Baines Drift	94.0	88.2	99.2	99.0	70.4	68.6	86.6
Mahalapye	88.6	86.2	86.7	92.6	77.3	66.8	83.0
Lephephe	71.8	72.3	75.5	81.5	71.5	70.2	73.8
Tshane	76.2	73.7	76.6	75.9	60.1	89.6	75.4
Werda	71.2	68.0	80.3	78.9	66.2	80.7	74.2
Goodhope	96.0	78.2	95.2	89.4	69.3	86.3	85.7
Monthly Average	72.4	75.0	87.2	87.8	69.6	77.5	78.3

Dash (-) = no data

Source: SASSCAL

January had the highest monthly average relative humidity during the six (6) month period. Highest relative humidity extremes were reached during the months of December 2023 and January 2024. To this effect, extremes of 99.2 and 97.7 were reached at Baines Drift and Shakawe respectively in December 2023, similarly 99.0 and 97.8 were reached at Baines Drift and Sowa respectively in January 2024.

5.3 Lowest Relative Humidity

Table 14 shows the lowest relative humidity recordings for the stations, during the period October 2023 to March 2024. The lowest humidity extremes were recorded during October 2023.

Table 14: Lowest Relative Humidity Percentage of Month By Station (October 2023 to March 2024)

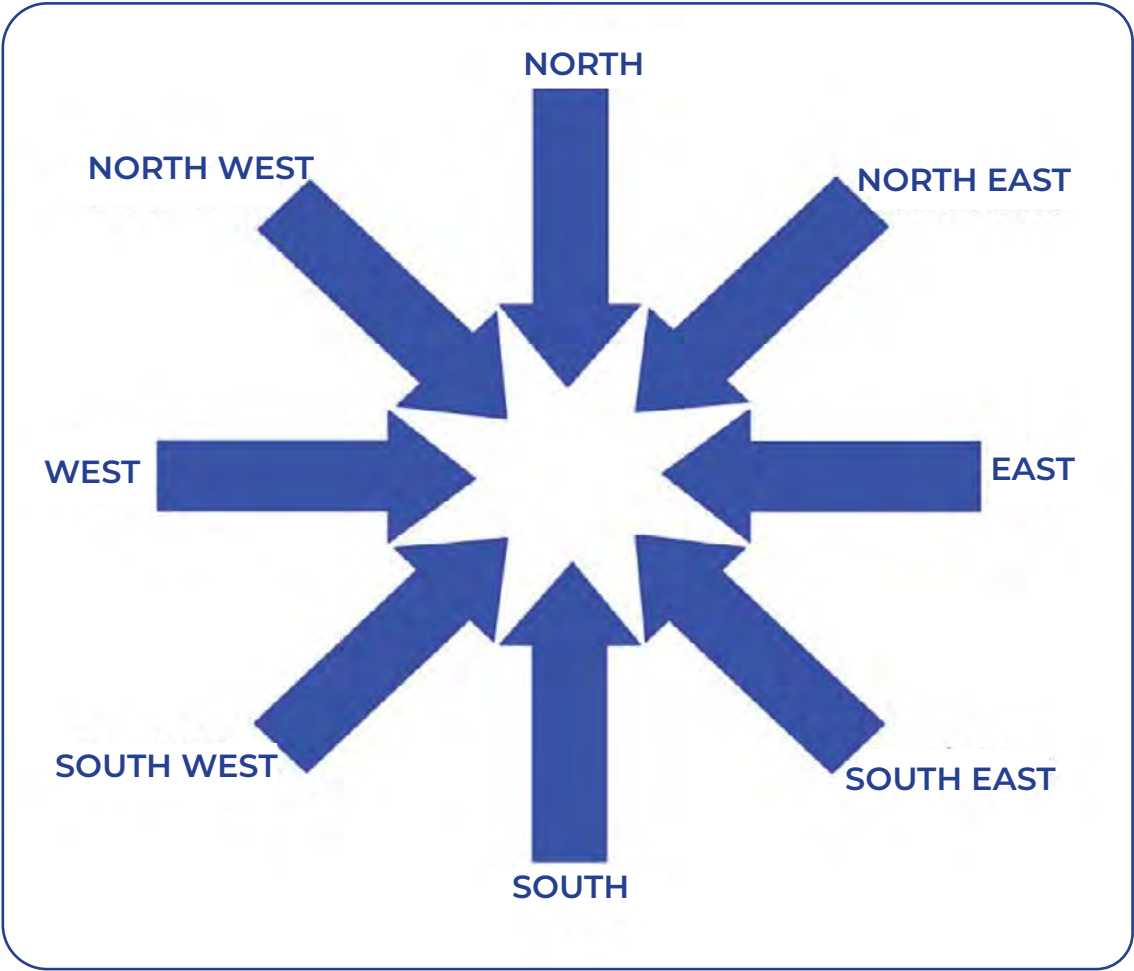
Station	October	November	December	January	February	March	Station Average
Shakawe	21.6	31.7	38.7	61.1	33.3	-	37.3
Tubu	14.8	25.4	31.3	56	37.5	33.5	33.1
Sowa	12.7	20.9	15.7	34.9	30.4	31.8	24.4
Ghanzi	10.1	22.7	17.5	35	27.1	21.3	22.3
Baines Drift	20.4	20.7	27.5	53	35.4	31.3	31.4
Mahalapye	11.3	22.9	20.9	42.3	34.1	35.4	27.8
Lephephe	8.5	24.6	17.8	37.7	29.8	25.6	24.0
Tshane	10.4	10.6	12.9	37.1	22.5	21.2	19.1
Werda	9.3	18.2	14.7	44.7	20	22.5	21.6
Goodhope	11.7	29.9	18.6	45.2	24.3	21.8	25.3
Monthly Average	13.1	22.8	21.6	44.7	29.4	27.2	26.4

APPENDIX

Table 15. Wind Scale

m/s	Km/h	Beaufort scale	Label	Effects
0 - 0.2	1	0	Calm	Calm. Smoke rises vertically.
0.3-1.5	1-5	1	Light Air	Wind motion visible in smoke.
1.6-3.3	6-11	2	Light Breeze	Wind felt on exposed skin. Leaves rustle.
3.4-5.4	12-19	3	Gentle Breeze	Leaves and smaller twigs in constant motion.
5.5-7.9	20-28	4	Moderate Breeze	Dust and loose paper raised. Small branches begin to move.
8.0-10.7	29-38	5	Fresh Breeze	Branches of a moderate size move. Small Trees begin to sway.
10.8-13.8	39-49	6	strong Breeze	Large branches in motion. Whistling heard in overhead wires. Umbrella use becomes difficult. Empty plastic garbage cans tip over.
13.9-17.1	50-61	7	Near Gale	Whole trees in motion. Effort needed to walk against the wind. Swaying of skyscrapers may be felt, especially by people on upper floors.
17.2-20.7	62-74	8	Gale	Twigs broken from trees. Cars veer on road.
20.8-24.4	75-88	9	Severe Gale	Larger branches break off trees, and some small trees blow over. Construction/ temporary signs and barricades blow over. Damage to circus tents and canopies.
24.5-28.4	89-102	10	Storm	Trees are broken off or uprooted, saplings bent and deformed, poorly attached asphalt shingles and shingles in poor condition peel off roofs.
28.5-32.6	103-117	11	Violent Storm	Widespread vegetation damage. More damage to most roofing surfaces, asphalt tiles that have curled up and/or fractured due to age may break away completely.
>32.7	>118	12	Hurricane	Considerable and widespread damage to vegetation, a few windows broken, structural damage to mobile homes and poorly constructed sheds and barns. Debris may be hurled about.

Figure 5: Wind Direction Illustration



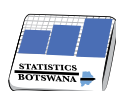




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