



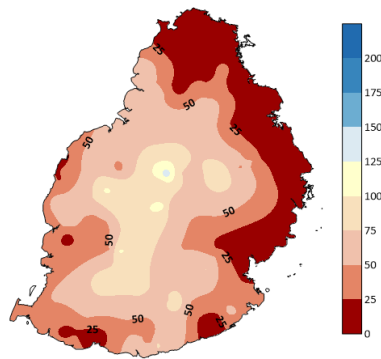
MAURITIUS METEOROLOGICAL SERVICES

CLIMATE OCTOBER 2023

Introduction

October 2023 was warm, indeed being the second warmest since 1960. The El Nino Southern Oscillation (ENSO) and the Indian Ocean Dipole (IOD) were in the positive phase and continued to strengthen while the Subtropical Indian Ocean Dipole (SIOD) was in the neutral phase. The Maden Julian Oscillation signal was weak in the Indian Ocean.

Monthly rainfall



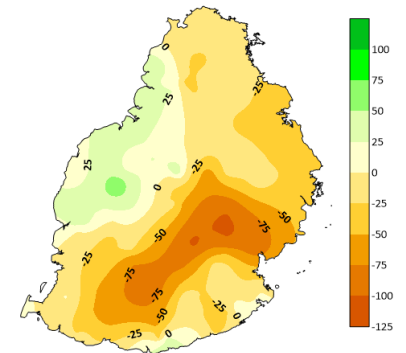
Rainfall

Below normal rainfall was recorded for October 2023, amounting to 54 mm and which represents 74 % of the long-term mean. About 30% of the total rainfall was recorded in the first fortnight and the remaining amount in the second fortnight

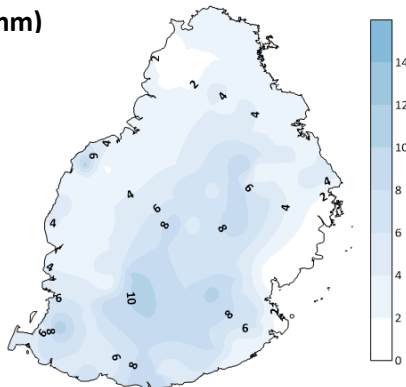
Rainfall was deficient almost over the whole island by 25-125 mm except over the Western part of the island where it was locally in excess by 25- 75 mm.

The highest cumulative rainfall for the month was 142.1 mm recorded at Alma.

Monthly rainfall Anomaly



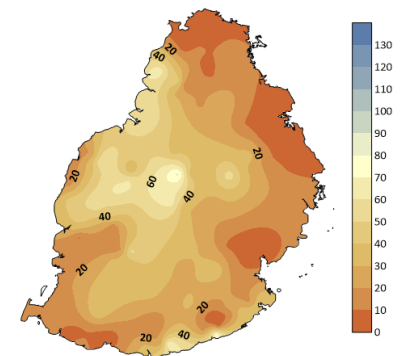
Rainfall days (> 1 mm)



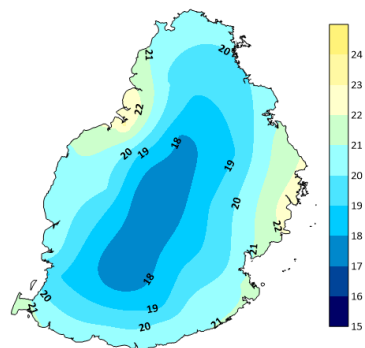
Mostly light rainfall was recorded during the month, especially in the second fortnight. The highest number of rainy days (≥ 1 mm) was observed at Chamarel Estate and Gros Cailloux with 12 and 11 rainy days respectively. Elsewhere, few rainy days were observed.

Highest 24-hour rainfall was 82.9 mm recorded at Alma on 28 October 2023.

Highest 24-hour Rainfall



Minimum Temperature



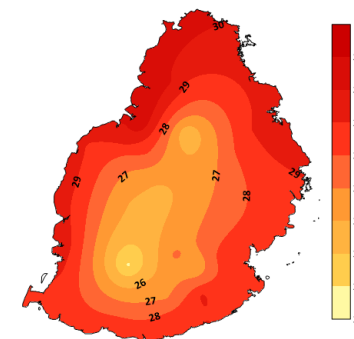
Temperature

The mean temperature over the island was 1.05 °C warmer than the LTM of 1991-2020. The mean minimum temperature and the mean maximum temperature were 0.9 °C and 1.2 °C warmer than the normal respectively.

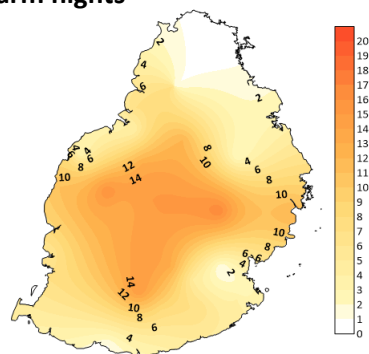
The highest maximum recorded was 33.5 °C at Champs de Mars on 31 October. The lowest maximum temperature recorded was 19.0 °C at Grand Bassin on 04 October.

The highest minimum was 25.3 °C at Port Louis on 25 October and the lowest minimum was 14.0 °C at Belle Rive on 15 October.

Maximum Temperature



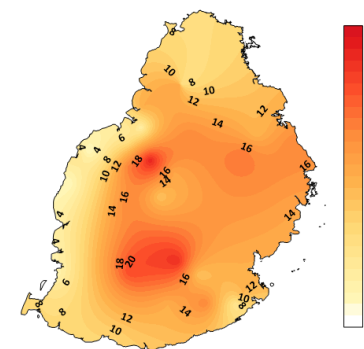
Warm nights



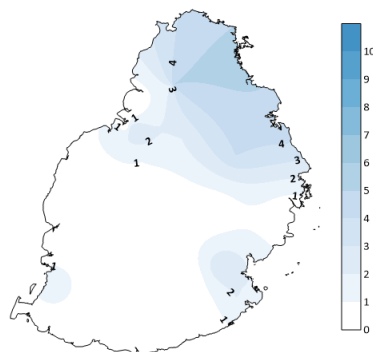
Nights and days were particularly warm during the month. The highest number of warm nights observed during the month were 17 at Sans Souci, 16 at Quatre Bornes and 15 at Belle Rive and Bois Cheri.

The highest number of warm days were 24 at Mon Desert Alma, 23 at Union Park and 21 at Grand Bassin.

Warm days

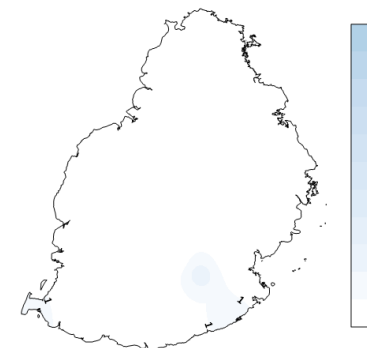


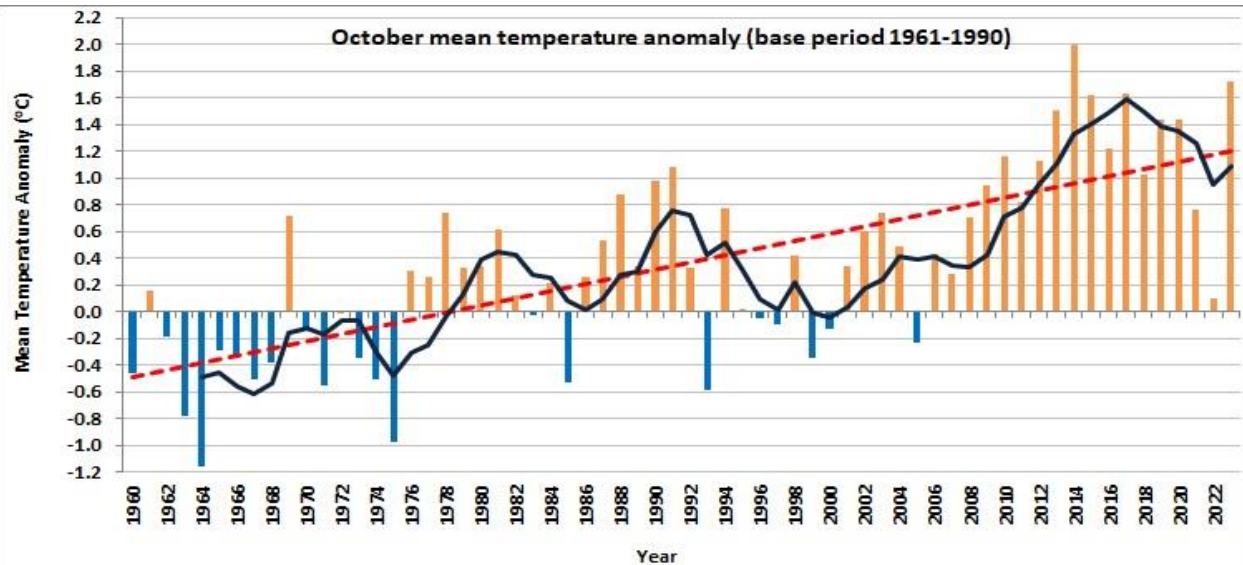
Cold nights



Very few cold nights (observed mainly to the North of the island) and cold days were recorded during the month. The highest number of cold nights was 5 at Ferret and the highest number of cold days was 3 at Rose Belle.

Cold days

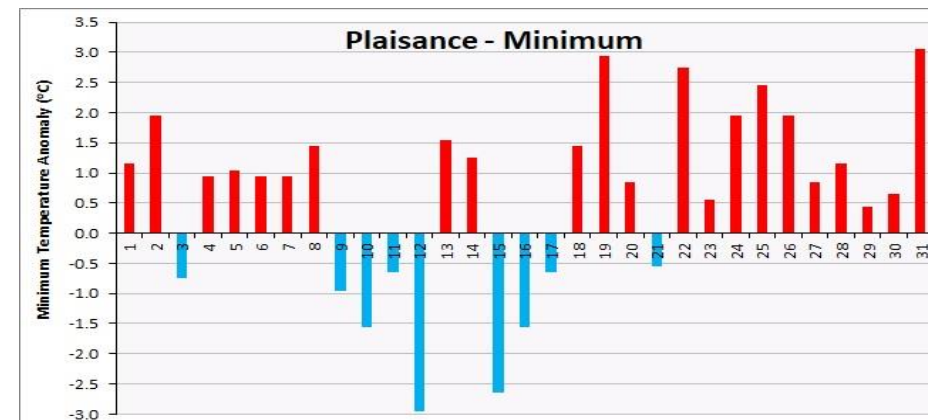
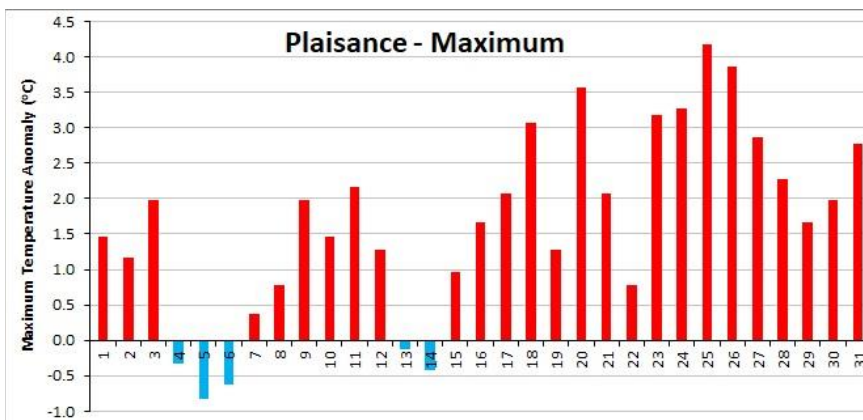
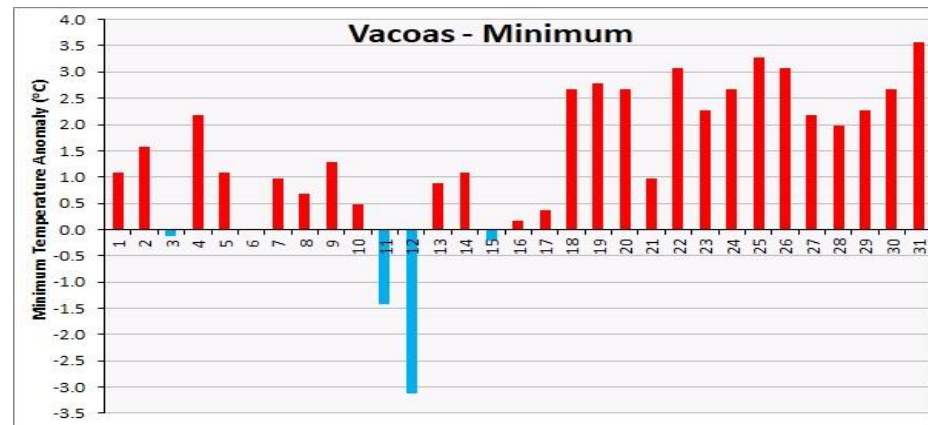
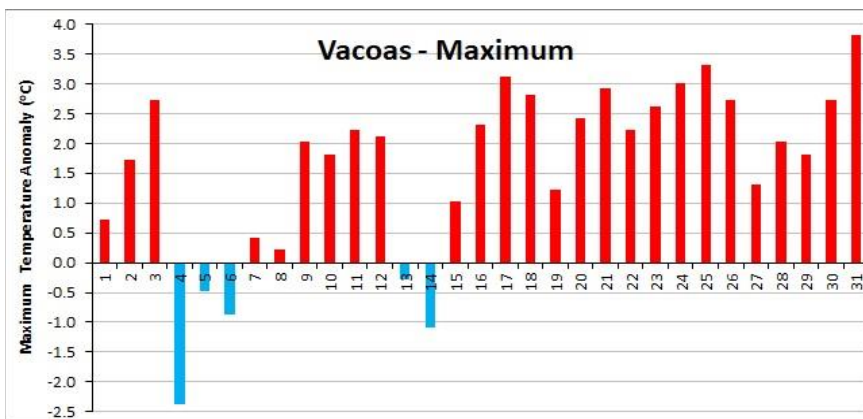




October 2023 was the second warmest since 1960.

Daytime and night time temperatures were most of the time warmer both at Plaisance and Vacoas. On several occasions, both stations recorded positive anomalies of more than 2 °C in the maximum and minimum temperatures.

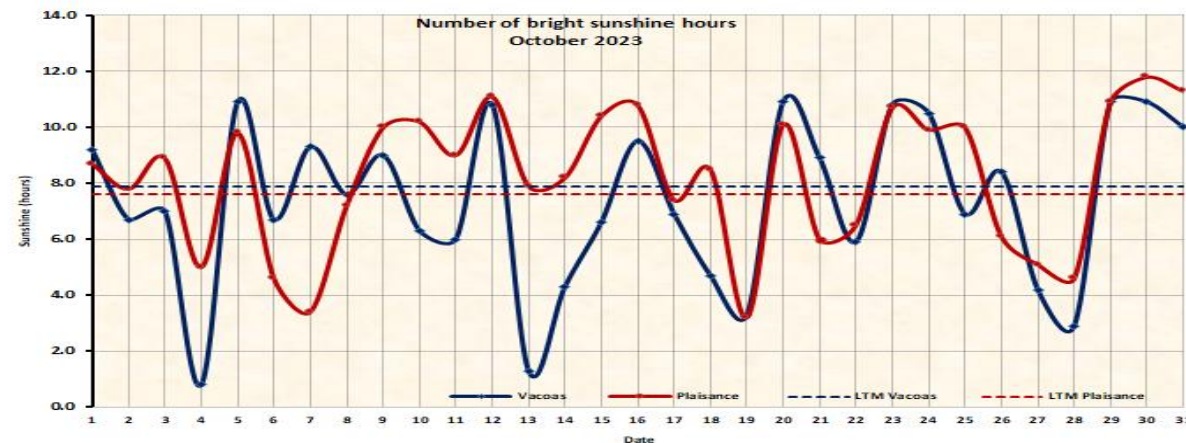
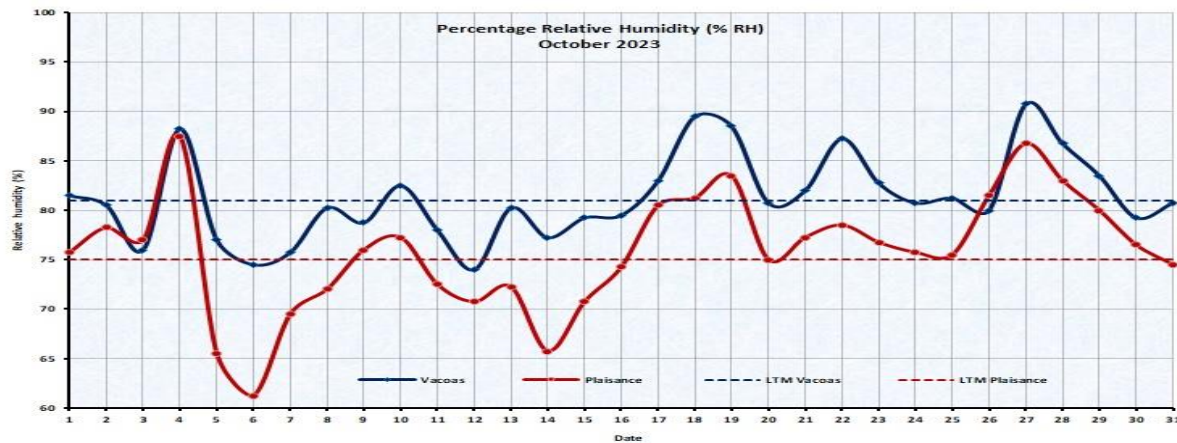
However, on a few occasions, during the second week of the month, a significant drop of 2-3 °C in the minimum temperature were noted both at Vacoas and Plaisance due to clear sky and light winds conditions.



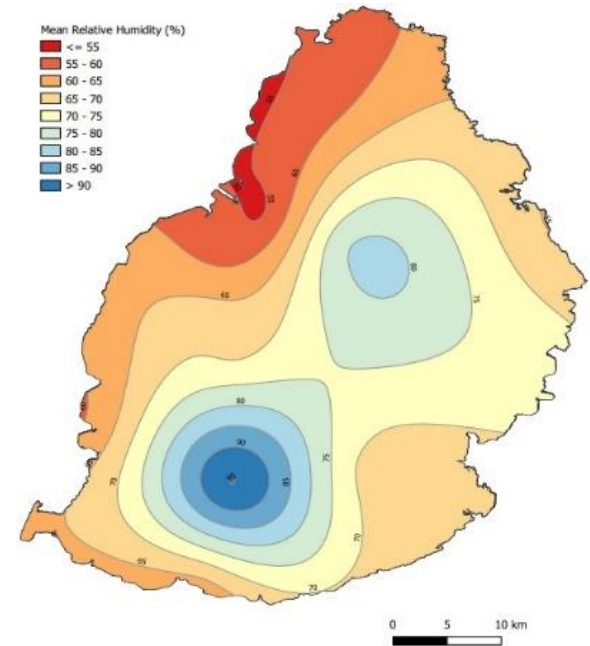
Sunshine and Humidity

On average the mean relative humidity for the month was close to the normal both at Vacoas and Plaisance. The daily humidity ranged from 74 to 91 % at Vacoas and from 61 to 88 % at Plaisance.

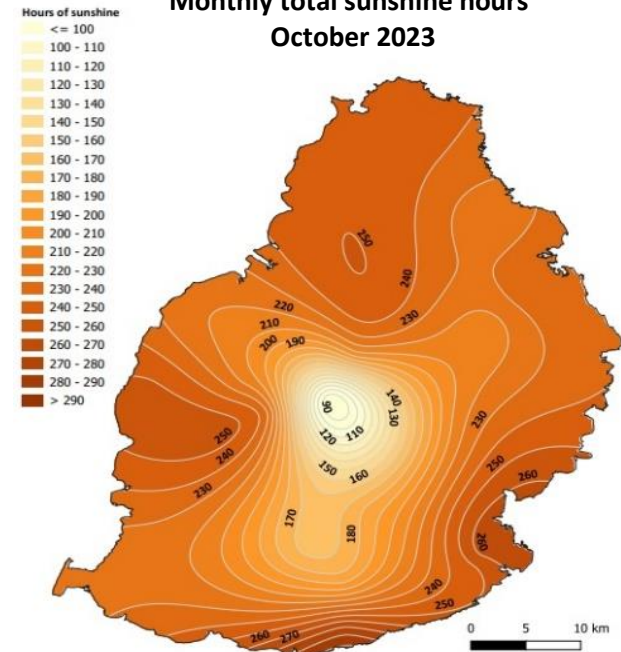
The number of daily bright sunshine hours were 92 % of the normal at Vacoas and 107 % at Plaisance (anomaly of -0.6 at Vacoas and +0.5 at Plaisance). The highest number of sunshine hours at Vacoas was 10.9 (recorded on 5, 20, 29 and 30 October) and 11.8 at Plaisance (recorded on 30 October). The lowest number of sunshine hours was 0.8 at Vacoas (recorded on 4 October) and 3.2 at Plaisance (recorded on 19 October). The total number of monthly bright sunshine hours was 228.1 at Vacoas and 255.1 at Plaisance.



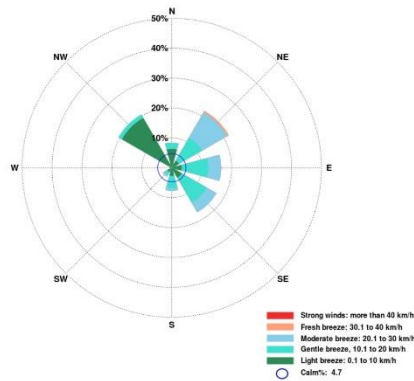
Monthly mean humidity
October 2023



Monthly total sunshine hours
October 2023



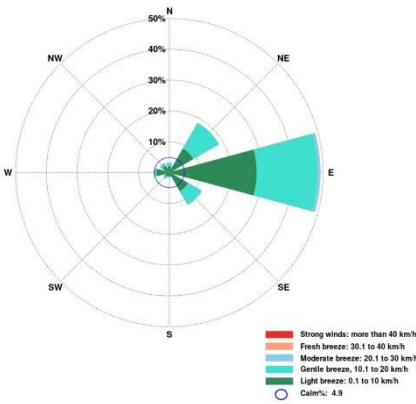
Winds



Wind frequencies from Plaisance (left) show winds mainly from the North West (due to frequent land breeze) and North East while at Vacoas (right) winds were mainly from the Eastern sector. Light to moderate winds prevailed most of the time over the island. However, on a few occasions, strong winds from the North East were observed at Plaisance.

The highest gusts recorded over the island were as follows:

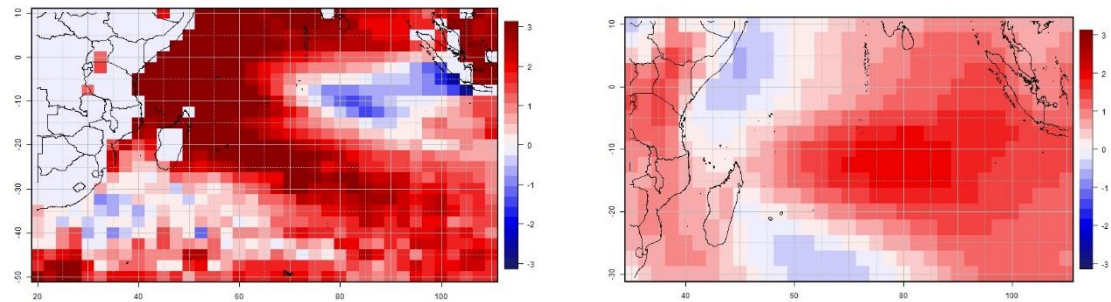
Regions	Highest gusts (km/h)	Date
Champ de Mars	61	7
Domaine les Pailles	58	5
Vacoas	51	4
Q. Victoria	47	6
Riv. Noire	47	7
Plaisance	46	2, 25
Bell Village	44	5



FORECAST FOR DECEMBER-FEBRUARY (DJF)

El Nino conditions are expected to strengthen gradually and become strong by the end of the forecast period. The IOD is expected to remain in the positive phase and gradually become neutral while the SIOD is expected to remain neutral.

Sea surface temperatures are expected to be above normal and pressure anomalies to be near normal in the Mascarene region as shown in the SST and pressure anomaly charts respectively.



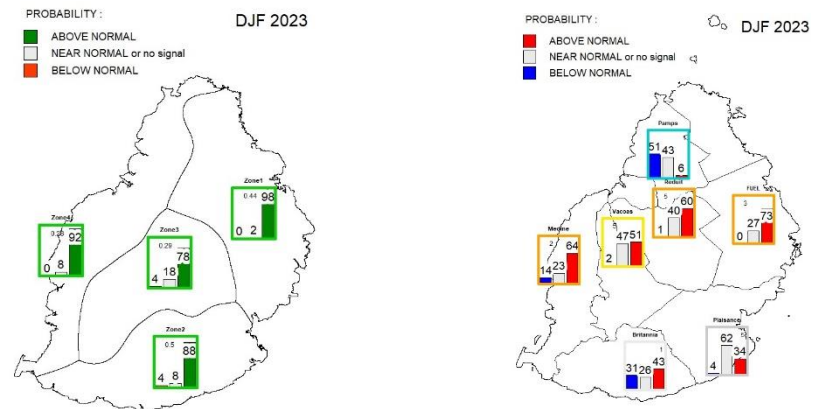
(a) Sea surface temperature and (b) pressure anomaly charts for DJF

Consensus forecast for Mauritius

Cumulative rainfall for December 2023 to February 2024 is expected to be slightly above normal. The monthly rainfall forecast consensus is as follows: -

- December: Well above normal (~ 290 mm)
- January: Slightly below normal (~ 240 mm)
- February: Normal (~ 325 mm)

Mean temperature is forecasted to be above normal over the whole island.



Statistical Model Forecast of (a) rainfall and (b) temperature for DJF

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**Director, Meteorological Services,
St Paul; Road Vacoas,**

Tel: 6861031/32, Fax: 6861033, email: meteo@intnet.mu

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