



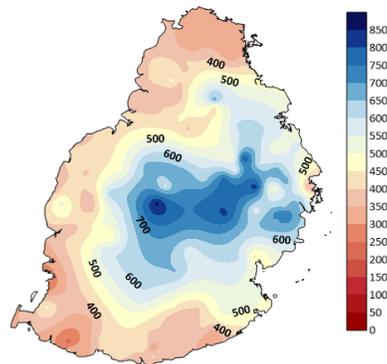
MAURITIUS METEOROLOGICAL SERVICES

CLIMATE JANUARY 2023

Introduction

January 2023 was the second wettest since the last 20 years. The mean temperature over the island was cooler than normal for the month. One tropical storm namely Cheneso, formed in the South West Indian Ocean but did not influence weather over the Mascarenes. La-Nina conditions persisted during the month. The Indian Ocean Dipole (IOD) was in the neutral phase while the Subtropical Indian Ocean Dipole (SIOD) was positive. The Madden Julian Oscillation (MJO) was strong in the Indian Ocean during the second fortnight of January 2023.

Monthly rainfall

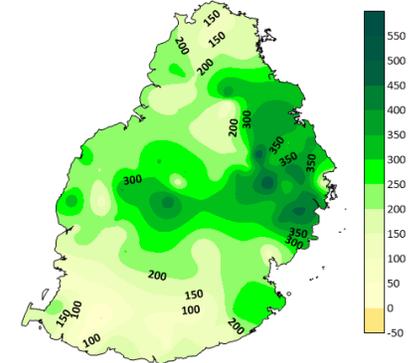


Rainfall

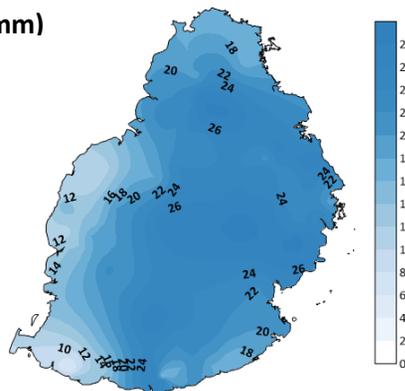
Very wet conditions prevailed over the island in the second fortnight of January 2023 and it was the second wettest January since the last 20 years. The island recorded about 521 mm of rainfall, which represents 185 % of the long-term mean. Rainfall was in excess almost over the whole island. About 82 percent of the rainfall amount was recorded in the second fortnight.

The highest cumulative rainfall for the month was 866 mm recorded at Belle Rive.

Monthly rainfall Anomaly



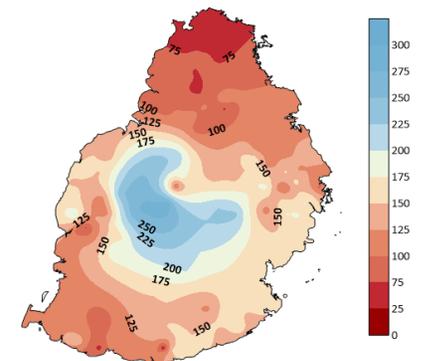
Rainfall days (> 1 mm)



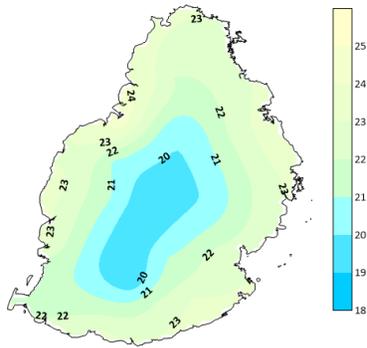
The highest number of rainy days (≥ 1 mm) was observed at Sans Souci with 29 rainy days. Elsewhere the number of rainy days varied between 10 and 28 rainy days.

Highest 24-hour rainfall was 286.8 mm recorded at Belle Rive on 26 January 2023.

Highest 24-hour Rainfall



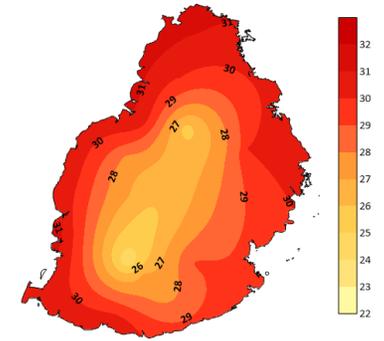
Minimum Temperature



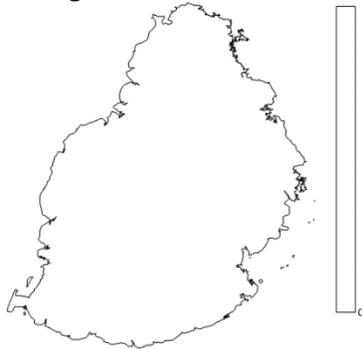
Temperature

The mean temperature over the island was $-1.15\text{ }^{\circ}\text{C}$ cooler than the LTM of 1991-2020. The mean minimum temperature and the mean maximum temperature were $-1.0\text{ }^{\circ}\text{C}$ and $-1.3\text{ }^{\circ}\text{C}$ cooler than the normal respectively. The highest maximum recorded was $34.6\text{ }^{\circ}\text{C}$ at Riviere Noire on Day 6 and Day 15. The lowest maximum temperature recorded was $20.3\text{ }^{\circ}\text{C}$ at Grand Bassin on Day 25. The highest minimum was $26.5\text{ }^{\circ}\text{C}$ at Le Morne on Day 29 and the lowest minimum was $15.8\text{ }^{\circ}\text{C}$ at Mon Bois on Day 01.

Maximum Temperature



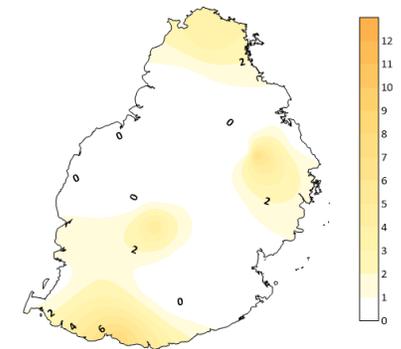
Warm nights



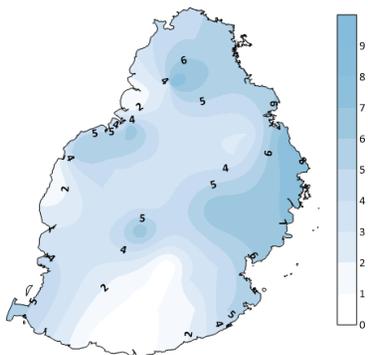
Practically no warm nights were recorded over the island. Few warm days were observed mainly to the east, the north and the southwest of the island.

The highest number of warm days was 8 at St Felix and 7 at Queen Victoria respectively.

Warm days



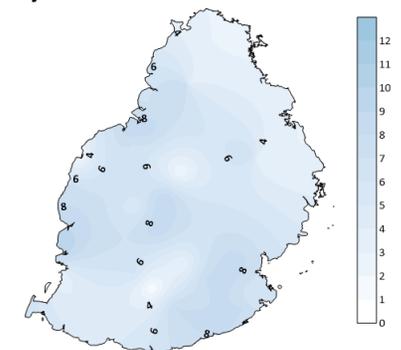
Cold nights

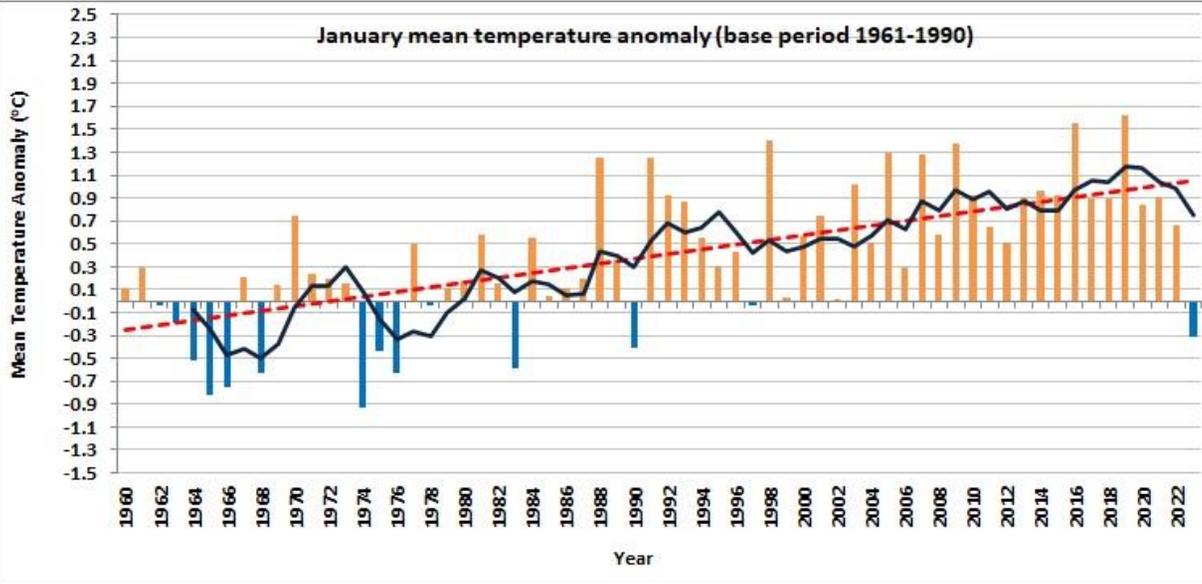


The highest number of cold nights recorded was 8 at Ferret and Belle Mare. Elsewhere the number of cold nights was between 1 and 7.

The highest number of cold days was observed in the region of Mon Bois with 9 cold days.

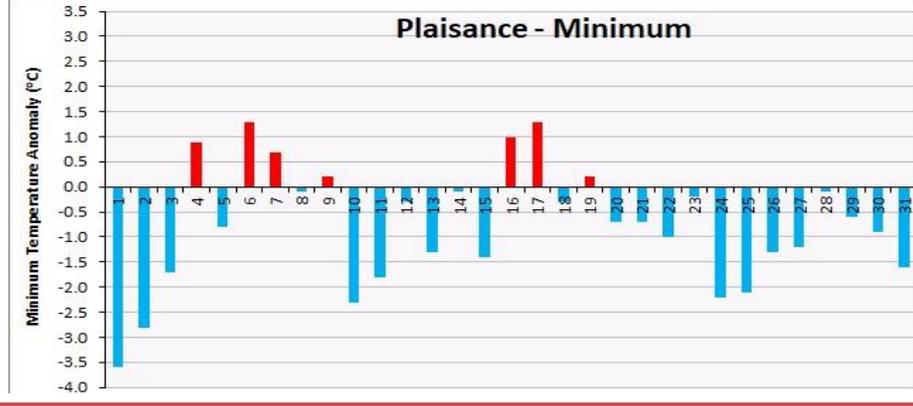
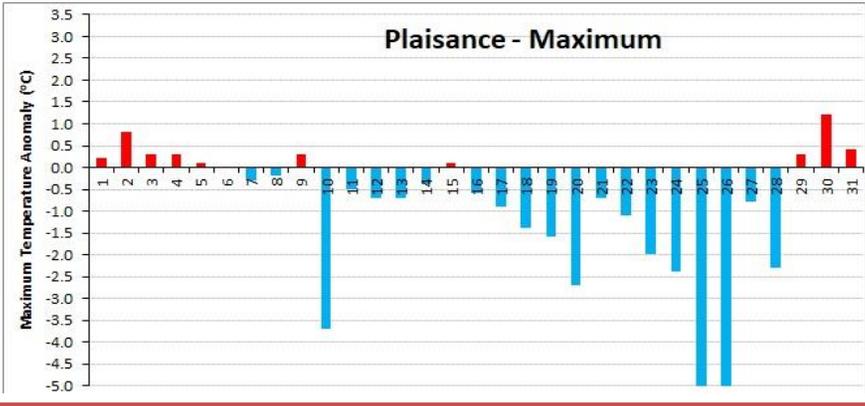
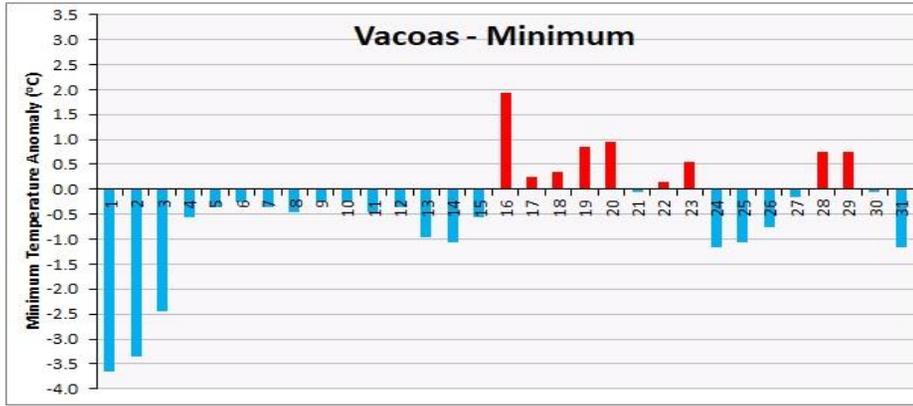
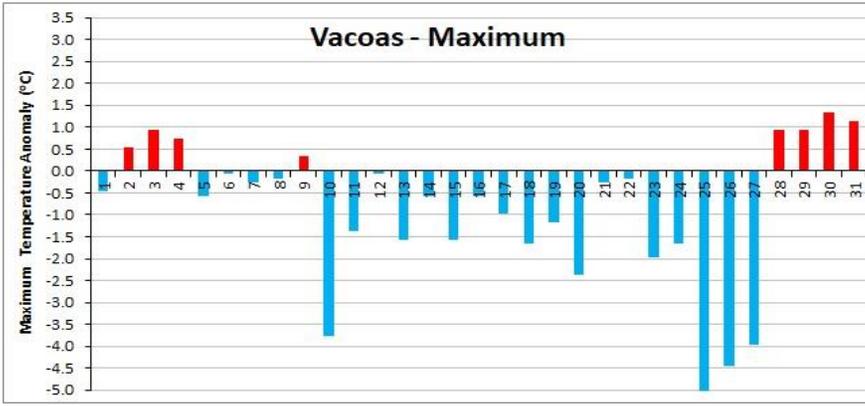
Cold days





January 2023 was the coolest in the last 32 years.

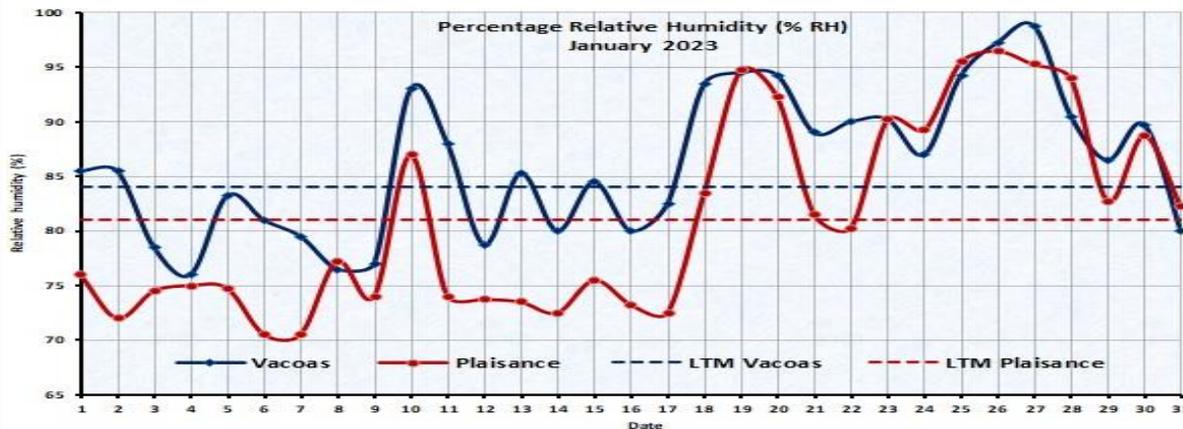
Daytime temperatures and night time temperatures were cooler most of the time both at Plaisance and Vacoas. A significant drop of about 2 to 5 °C in the maximum temperature was noted in the second fortnight at both stations. On the other hand, minimum temperatures were 2 to 4 °C cooler than the normal both at Plaisance and Vacoas in the first week of January 2023. During the rest of the month, the minimum temperatures were about 0.5-1 °C and 1-1.5 °C cooler than the normal at Vacoas and Plaisance respectively.



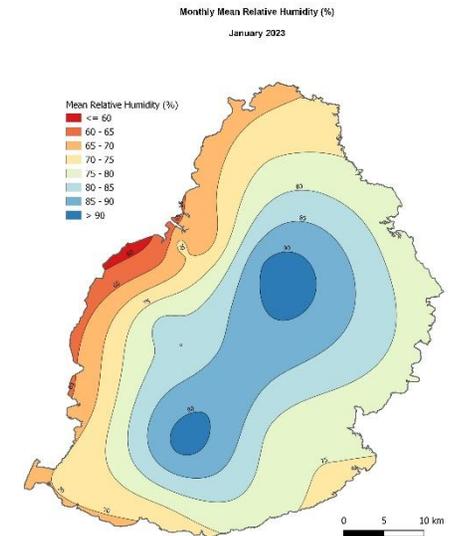
Sunshine and Humidity

On average the mean relative humidity for the month was close to the normal both at Vacoas and Plaisance. The daily humidity ranged from 76 to 99 % at Vacoas and from 71 to 97 % at Plaisance. In the second fortnight, the relative humidity remained very high at both stations.

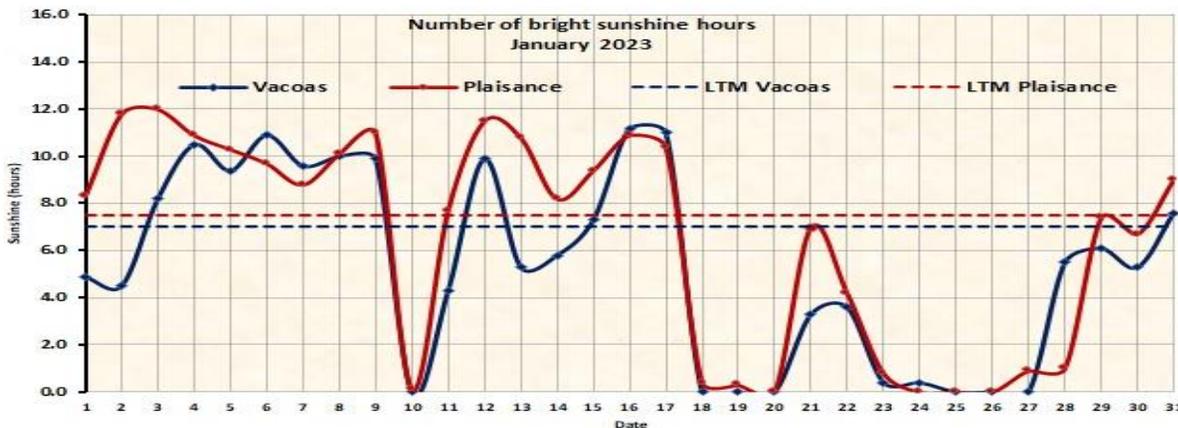
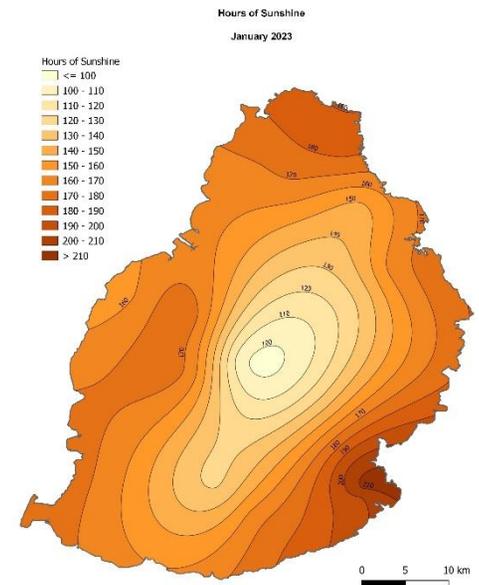
The number of daily bright sunshine hours were 76 % of the normal at Vacoas and 86 % at Plaisance (anomaly of -1.7 and -1.1 at Vacoas and Plaisance respectively). The highest number of sunshine hours at Vacoas was 11.2 (recorded on Day 16) and 12.0 at Plaisance (recorded on Day 3). The lowest number of sunshine hours was 0 at Vacoas (recorded on Day 10, 18 to 20, and 25 to 27) and Plaisance (recorded on Day 20 and 24 to 26). The total number of monthly bright sunshine hours was 164.9 at Vacoas and 199.6 at Plaisance.



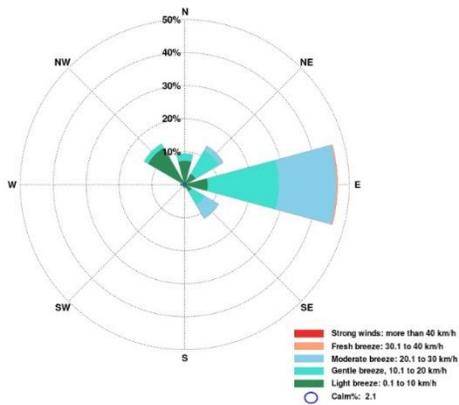
Monthly mean humidity



Monthly total sunshine hours



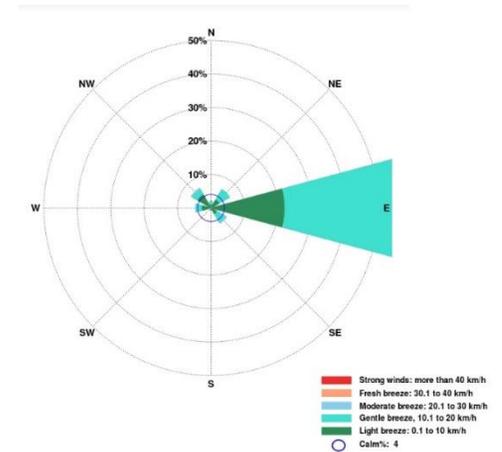
Winds



Wind frequencies from Plaisance (left) and Vacoas (right) show winds mainly from the eastern sector. Light to moderate winds prevailed most of the time over the island.

The highest gusts recorded over the island were as follows:

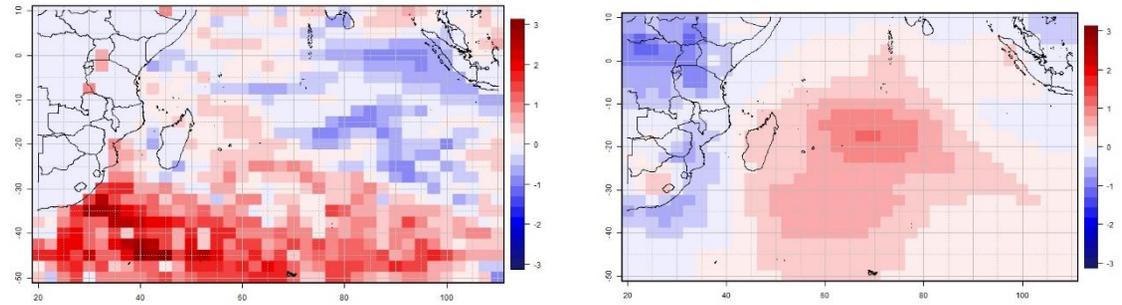
Regions	Highest gusts (km/h)	Date
Champ de Mars	83	18
Grand Bassin	65	18
Vacoas	63	18
N. Decouverte	61	27
St. Felix	61	18
Riche Terre	60	18
Bois Mangues	60	18
Bell Village	56	18



FORECAST FOR MARCH-APRIL-MAY (MAM)

ENSO neutral conditions are expected to persist till the end of the forecast period. The IOD and SIOD are expected to be neutral during the forecast period.

Sea Surface Temperature (SST) and pressure anomaly are expected to be slightly above 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 MAM

Consensus forecast for Mauritius

Cumulative rainfall for March to May is expected to be normal. The monthly rainfall forecast consensus is as follows: -

- March: normal (~ 280 mm)
- April: normal (~ 185 mm)
- May: normal (~ 140 mm)

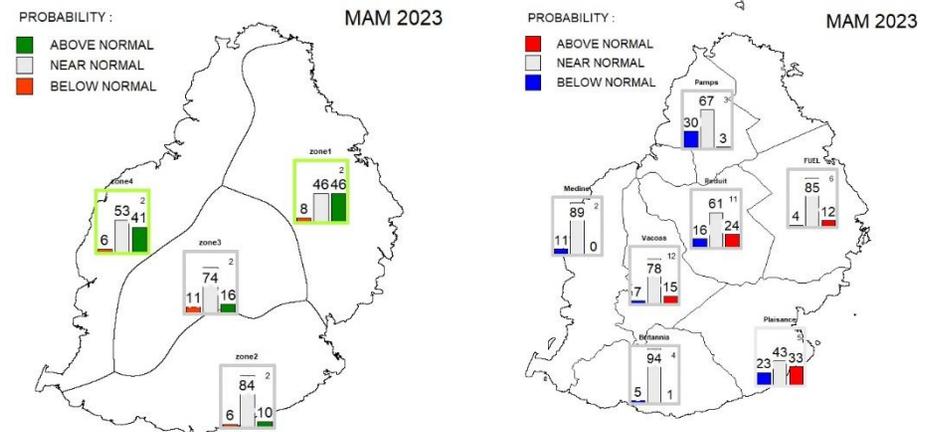
Mean temperature is forecasted to be near normal over the whole island.

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