



MAURITIUS METEOROLOGICAL SERVICES

CLIMATE MARCH 2022

Introduction

March 2022 was wet and rather warm. Two intense tropical cyclones namely, Gombe and Halima formed during the month but did not influence weather over Mauritius. Weak La-Nina conditions persisted during the month while the Indian Ocean Dipole (IOD) and the Subtropical Indian Ocean Dipole (SIOD) were in the neutral phase. The Madden Julian Oscillation (MJO) evolved over the Indian Ocean during the second and third week of March.

Rainfall

March 2022 received well above normal rainfall amounting to 415 mm, representing 141 % of the long term mean for this month. Fifty-nine percent (59 %) of the total rainfall was recorded in the first fortnight and 41% in the second half.

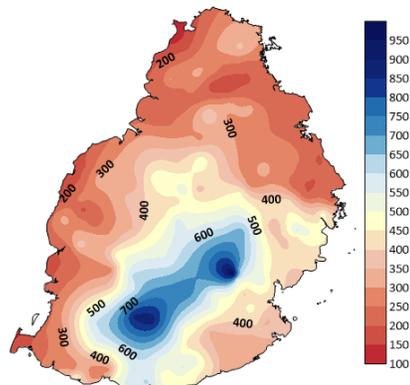
The highest cumulative rainfall for the month was 996.0 mm recorded at Cent Gaulettes.

Excess rainfall of about 250 to 350 mm was observed over the Central Plateau while rainfall was deficient by about 50 to 100 mm in some regions to the east and the extreme western part of the island. In other regions, rainfall was mainly normal.

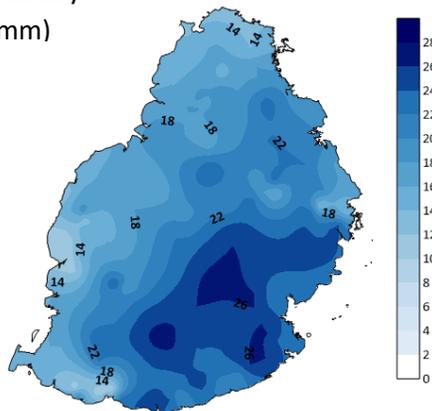
The highest number of rainy days (≥ 1 mm of rain) was observed mainly over the windward part of the central plateau and to the south east; 27 rainy days at Bois Cheri, Cent Gaulettes, Montagne Ronde, Riviere des Creoles and Eau Bleue Dam.

Highest 24-hour rainfall was 234.2 mm recorded at Bois Cheri on Day 21. One of the highest intensities of rainfall recorded was 70.9 mm/h at Vacoas on Day 13 between 13h00 and 14h00 local time.

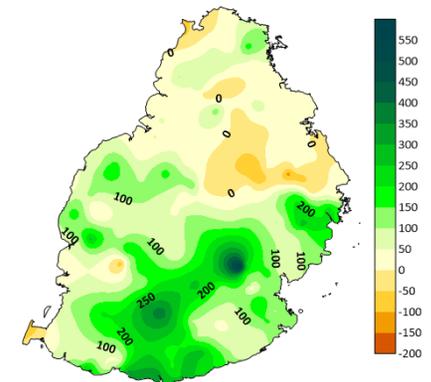
Monthly rainfall



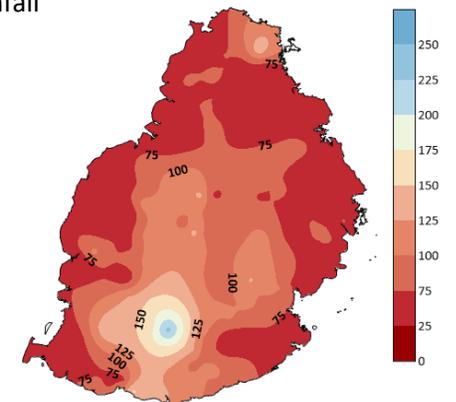
Rainfall days
(> 1 mm)



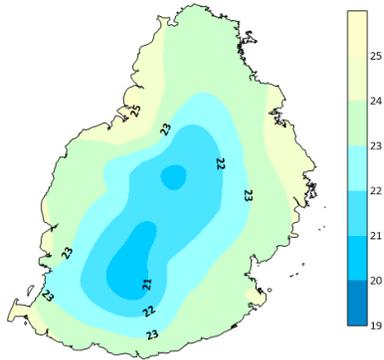
Monthly rainfall
Anomaly



Highest 24-hour
Rainfall



Minimum Temperature



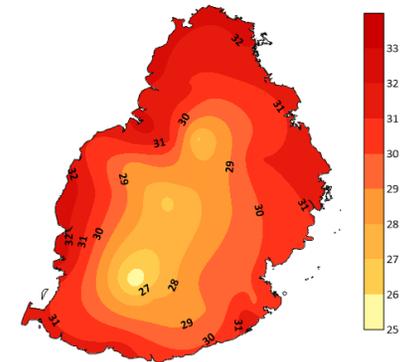
Temperature

The mean temperature over the island was 0.56 °C warmer than the LTM of 1991-2020. The mean minimum and mean maximum temperatures were warmer by 0.4 °C and 0.8 °C respectively.

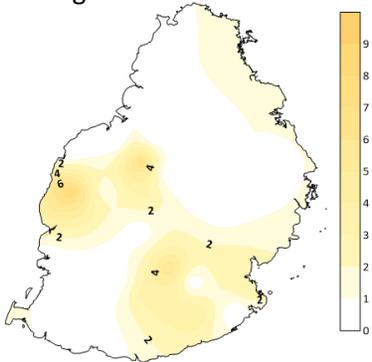
The highest maximum recorded was 35.4 °C at Riviere Noire on Day 25. The lowest maximum temperature recorded was 21.4 °C at Grand Bassin on Day 31.

The highest minimum was 28.1 °C at Le Morne on Day 19. The lowest minimum was 16.5 °C at Mon Desert Mon Tresor recorded on Day 30.

Maximum Temperature



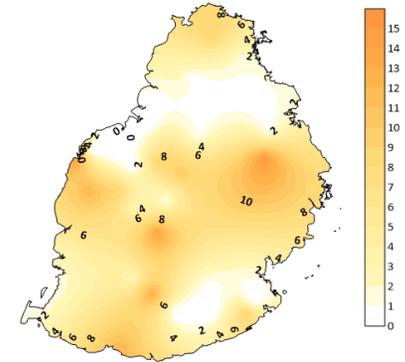
Warm nights



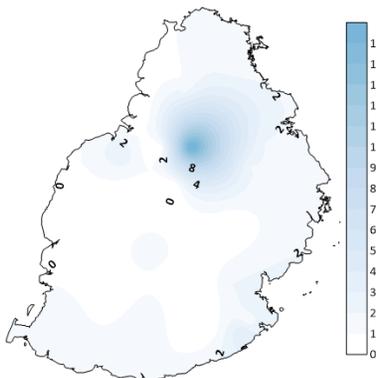
Few warm nights were observed particularly to the west; 8 warm nights at Beau Songes and 6 at Medine.

Warm days were observed across the island, particularly to the east, the west and over the central plateau; 15 warm days at Queen Victoria and Albion. Mon Bois and Bois Cheri recorded 14 and 13 warm days respectively. The north recorded fewer warm days.

Warm days



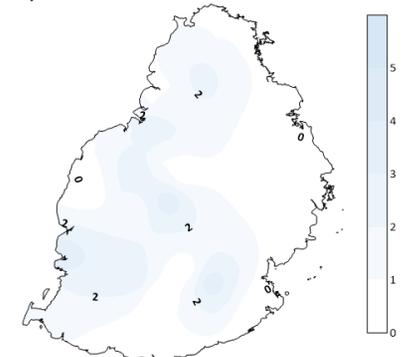
Cold nights

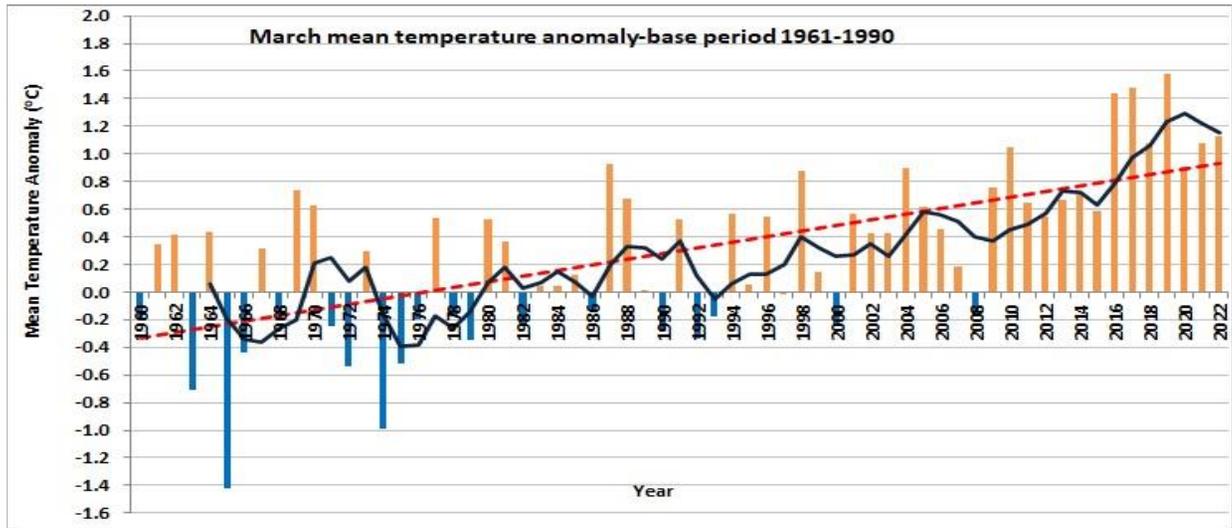


Cold nights were observed mainly in the region of Nouvelle Decouverte where 17 cold nights were recorded. In other regions it varied between 0 to 4.

Few cold days were observed across the island. The highest number of cold days was 4 at Rose Belle and Belle Rive. In other regions number of cold days varied between 0 to 3.

Cold days

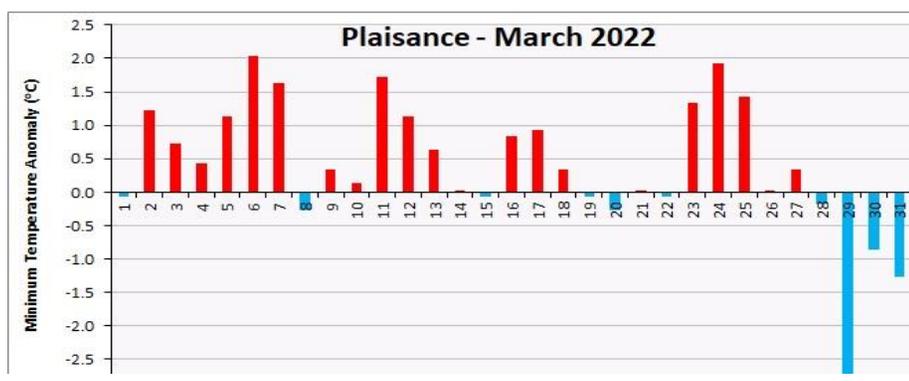
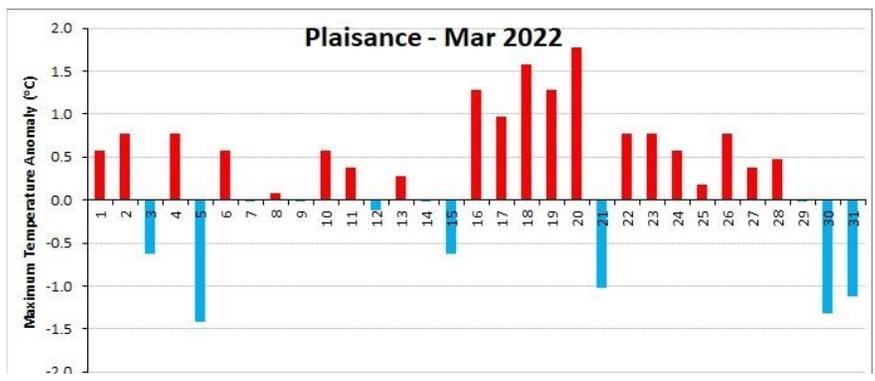
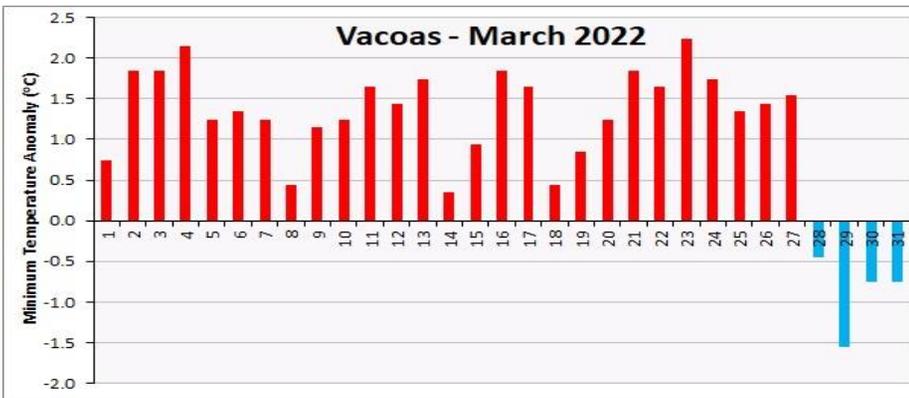
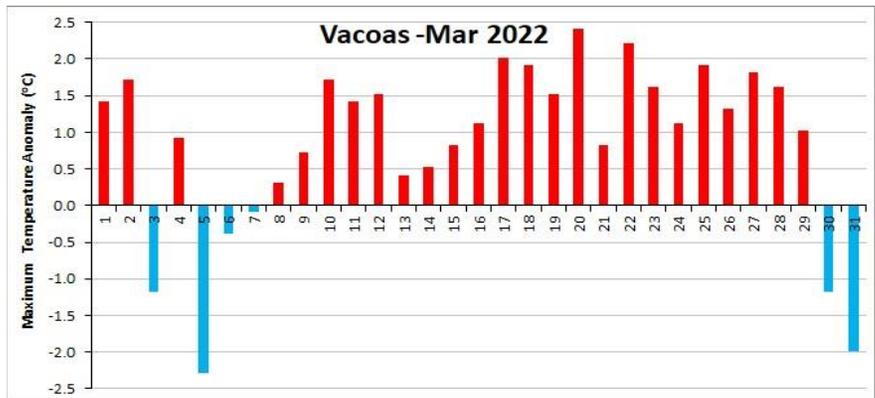




Daytime and night temperature anomalies were exceptionally warmer over the central plateau than over the coastal regions during the month.

However, on a few occasions because of cloudiness, the maximum temperatures were 1-2 °C, cooler both at Vacoas and Plaisance.

In the last week, relatively cooler and drier air invaded the island with consequent drop in temperatures and humidity. Night temperatures mainly, were 1-2 °C cooler both at Vacoas and Plaisance.

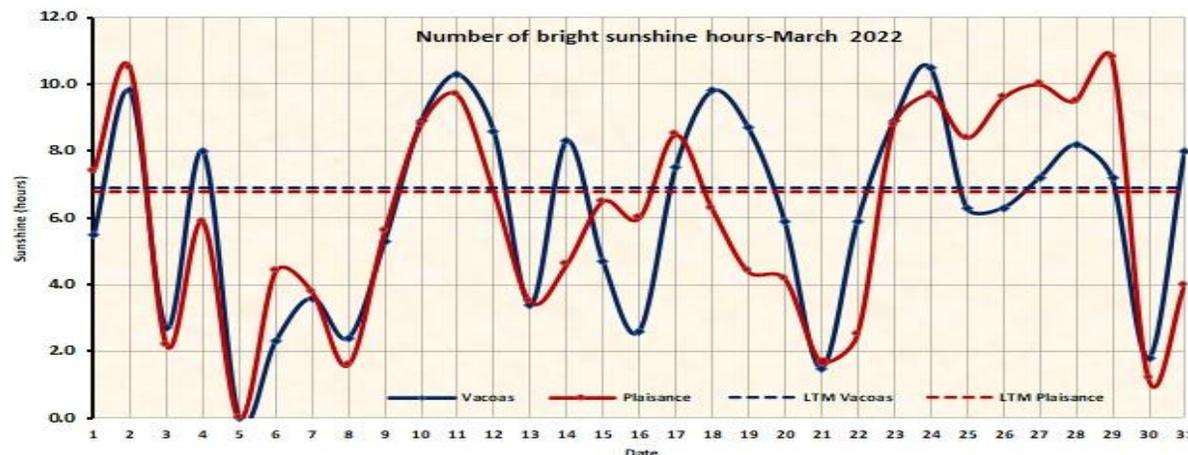
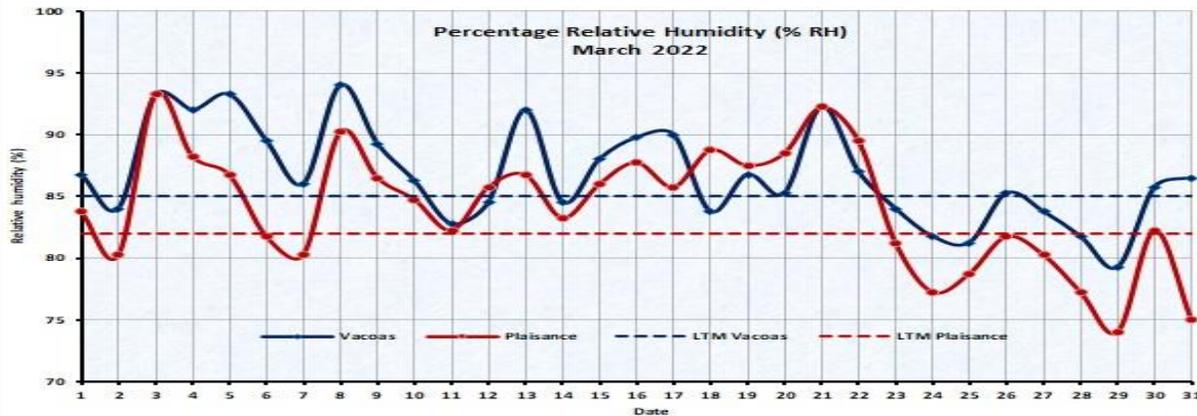


Sunshine and Humidity

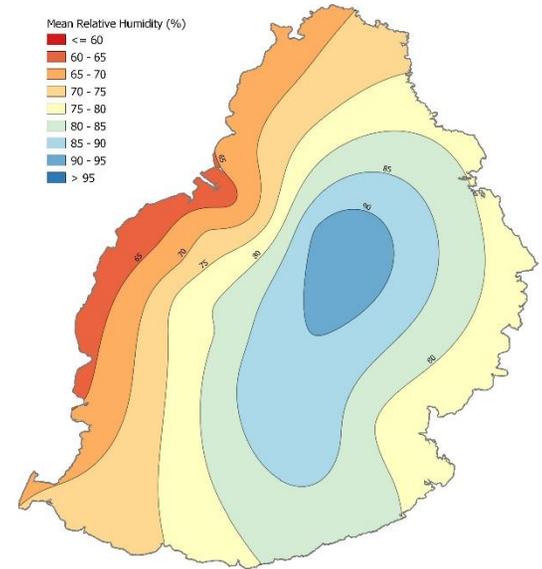
The mean relative humidity was close to normal at both stations. The daily humidity ranged from 79 to 94% at Vacoas and from 74 to 93 % at Plaisance. During the last week there was a notable decrease in humidity due to invasion of relatively drier air from the south of the Mascarenes.

The number of daily bright sunshine hours were 89 % of the normal both at Vacoas and Plaisance (anomaly was -0.8 at both stations). The highest number of sunshine hours was 11 recorded both at Vacoas and Plaisance (on Day 24 at Vacoas and on Day 2 and Day 29 at Plaisance). The lowest number of sunshine hours was 0.0 both at Plaisance and Vacoas, recorded on Day 5.

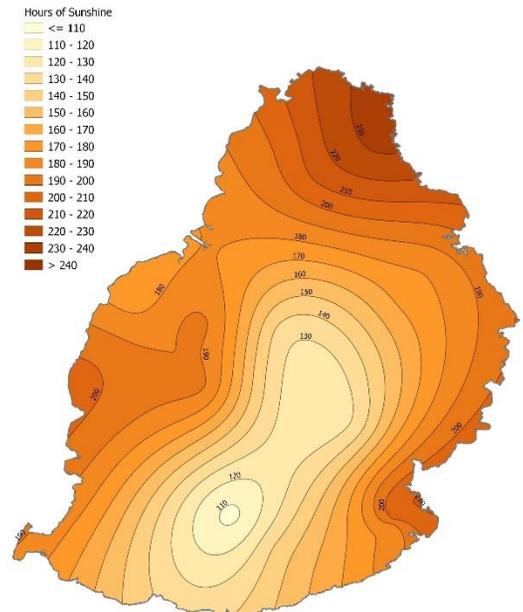
The total number of monthly bright sunshine hours at Vacoas was 190.1 and at Plaisance 186.9, representing 89% of the LTM at both stations.



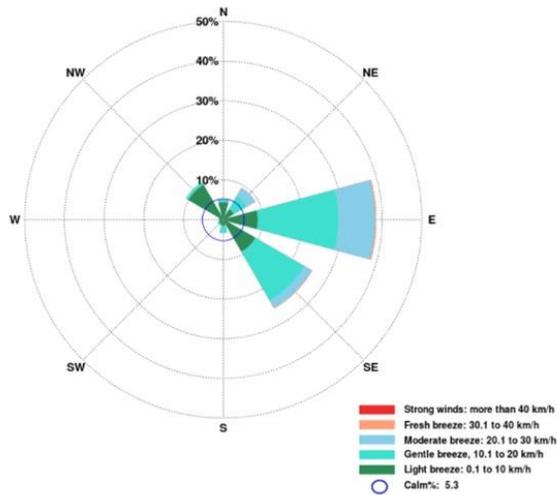
Monthly mean humidity



Monthly total sunshine hours



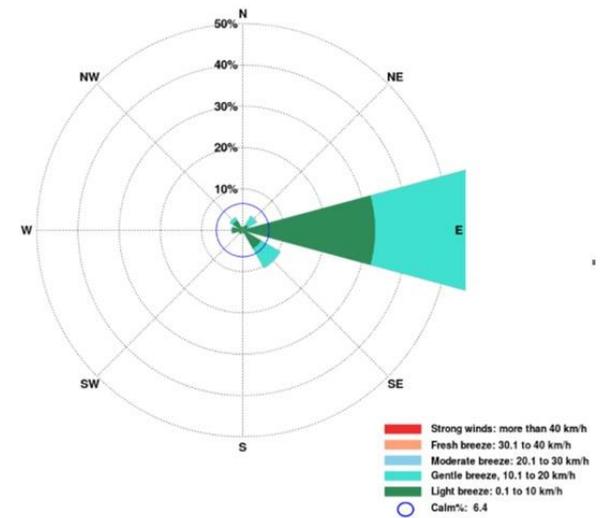
Winds



Wind frequencies from Plaisance (left) and Vacoas (right) show winds mainly from the eastern sector. On other instances, the wind blew from the south east and the north-western sector. Light to moderate winds prevailed most of the time over the island. Nevertheless, on a few occasions, Plaisance recorded fresh breeze.

The highest gusts recorded over the island were as follows:

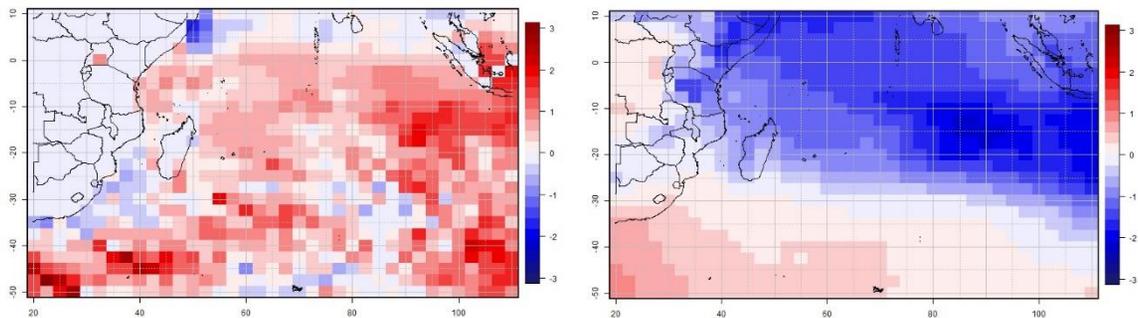
Regions	Highest gusts (km/h)	Date
D. L. Pailles	90	30
Champ de Mars	76	13,30,31
Le Morne	76	30
Grand Bassin	72	31
Bell Village	68	31
St. Felix	65	30
Beaux Songes	61	31
N. Decouverte	58	30,31
M L Rouillard	58	30,31



FORECAST FOR MAY-JUNE-JULY

Weak La Nina conditions are expected to persist in the equatorial Pacific Ocean during the forecast period. IOD will gradually migrate to the moderate negative phase by July while SIOD is expected to remain neutral.

SST anomaly will be normal to slightly above while pressure anomaly will be normal to slightly below in the Mascarene region as shown in the SST and pressure anomaly charts respectively.



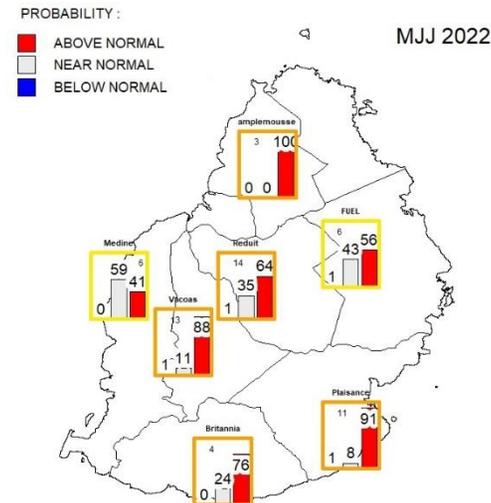
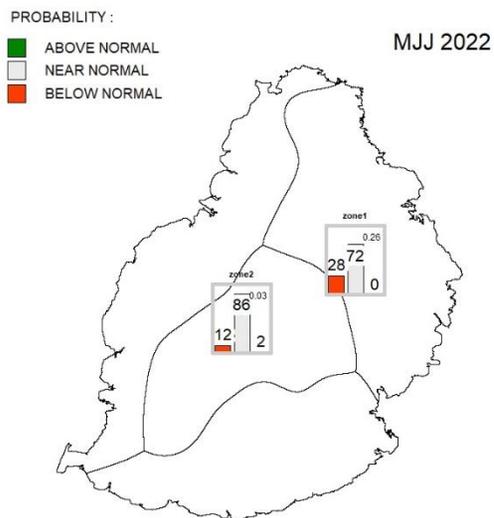
(a) Sea surface temperature and (b) pressure anomaly charts for MJJ 2022

Consensus forecast for Mauritius

There was no signal from the model forecast for the northern, western and southern part of the island. Over the central plateau and to the east, the model is expecting normal rainfall. The mean rainfall over the island for MJJ are as follows:

- May: normal (~ 150 mm)
- June: slightly below (~ 100 mm)
- July: normal (~ 145 mm)

Mean temperature is forecasted to be close to slightly above normal.



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

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

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Statistical Model Forecast of (a) rainfall and (b) temperature for MJJ 2022