

MAURITIUS METEOROLOGICAL SERVICES CLIMATE SEPTEMBER 2021



Introduction

September 2021 rainfall was slightly below normal. El-Nino La-Nina Southern Oscillation (ENSO) remained in the neutral phase and the Indian Ocean Dipole (IOD) in the equatorial Indian Ocean was negative. The Subtropical Indian Ocean Dipole remained neutral and the Madden Julian Oscillation (MJO) was active over the eastern Indian Ocean most of the time.



Rainfall

An average of 74 mm of rainfall was recorded over the island equivalent to 87% of the long term mean for the month; 42% of the total rainfall was recorded in the first fortnight and 58% in the second. Around 187 mm of rainfall was recorded in the region of Arnaud. Rainfall was mostly deficient mainly to the east and south, especially in the region of Bel Etang, Bel Ombre and Ferney where it was deficient by more than 50 mm.





Over several regions of the Central Plateau and locally to the south and east, about 15 to 20 rain days (\geq 1mm of rain) were observed, the highest being 24 at Constance.

The 24-hour rainfall ranged between 20 to 40 mm at over the Central Plateau and certain region of the East, the highest reaching 64.2 mm at Constance.





Temperature

Mean maximum temperature was close to the normal. The highest maximum recorded was 30.1 °C at Riviere Noire on Day 30 and the lowest was 16.9 °C at Grand Bassin on Day 13. The mean minimum temperature was also near average, with a high of 24.0 °C at Gros Cailloux on Day 18 and a low of 11.5 °C in the region of Ferret on Day 20. The Central Plateau recorded the lowest mean minimum while the mean maximum was warmest to the west and northeast.





Warm nights were particularly observed to the west, southeast and northeast; 22 at Gros Cailloux followed by 13 at Digue Seche.

The region experiencing maximum warm days were to the west and northeast. Digue Seche observed 10 warm days followed by 6 at Beau Songes and Alma.





Cold nights were mostly observed to the east and west with 7 such nights at Albion and 6 at Pamplemousses and 5 at Sans Souci.

The highest number of cold days was observed over the central plateau and the windward slopes amounting to 19 at Belle Rive and 11 at Fuel. Other regions which recorded 5 cold days include Port Louis, Ferret, Champ de Mars, Bois Cheri and Riche en Eau.





Compared to LTM 1991-2020, the mean temperature over the island was close to the normal (-0.1 $^{\circ}$ C). The mean minimum and maximum temperatures were also close to the normal (+0.3 $^{\circ}$ C and -0.5 $^{\circ}$ C) respectively.

The island experienced cooler day temperatures whereby the temperatures dropped by 2-5 °C, more during the first and second week. Day 29 was the coolest day. During the warm days, both the maximum and minimum temperatures were 2-4 °C above the normal.

Nights were mainly warmer except on some occasions especially during the third week when some cooler nights were observed.



Sunshine and Humidity

The mean relative humidity was close to the normal at both stations. The daily humidity ranged from 70 to 91 % at Vacoas and from 60 to 85 % at Plaisance.

The number of daily bright sunshine hours was close to the normal at Plaisance and at Vacoas; the anomaly was nil and +0.6 for both stations respectively. Day 10 was mainly a sunny day but the highest number of sunshine hours of 10.9 was recorded on 21 at Vacoas, and the lowest sunshine hours of 0.4 was recorded at Plaisance. The total number of monthly bright sunshine hours at Vacoas was 241.0 (109% of LTM) and at Plaisance it was 203.9 (100% of LTM).





Monthly mean humidity



Monthly total sunshine hours SUNSHINE HOURS <= 110 110 - 120 120 - 130 130 - 140 140 - 150 150 - 160 160 - 170 170 - 180 180 - 190 190 - 200 200 - 210 210 - 220 220 - 230 230 - 240 240 - 250 > 250

Winds



Wind frequencies from Plaisance (left) and Vacoas (right) shows winds mainly from the eastern and south-eastern sector during the month.

Regions	Date	Highest
		gusts (km/h)
Champ de Mars	28	83
Le Morne	12	68
N Decouverte	12	68
Grand Bassin	12	68
Domaine les Pailles	21	68
Beaux Songes	27	65
St Felix	12	65



Sea state



Significant waves recorded indicated that the sea was mainly moderate with wind wave of heights between 1 and 2.5 m and there were rare occasions of rough seas with waves of more than 2.5 m.

Sea parameter	Date	Height in meters
Highest significant wave recorded	12	3.4
Highest wave recorded	12	6.0

FORECAST FOR NOVEMBER-DECEMBER-JANUARY (NDJ)

Weak La Nina condition has established over the equatorial Pacific Ocean. It is forecasted to peak to moderate intensity in December 2021. The IOD and SIOD will remain neutral.

Sea surface temperature over the Mascarene region is forecasted to be neutral and a weak negative pressure anomaly is observed in the pressure chart as shown in figures 1(a) and 1(b). Fig



Figure 1: (a) Sea surface temperature and (b) pressure anomaly charts for NDJ 2021

Consensus forecast for Mauritius

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

- November slightly below normal (~ 60 mm),
- December below normal (~ 115 mm),
- January normal (~ 255 mm)

Mean temperature is forecasted to be normal across the island.

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St Paul; Road Vacoas,

Tel: 6861031/32, Fax: 6861033, *email*: <u>meteo@intnet.mu</u> Updated on: 05 November 2021

