



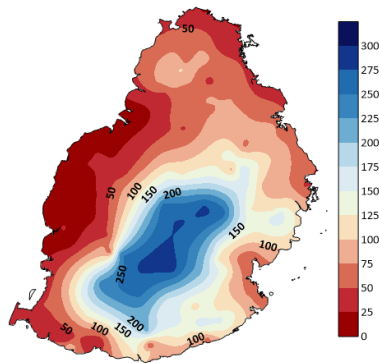
MAURITIUS METEOROLOGICAL SERVICES

CLIMATE JULY 2023

Introduction

Rainfall was normal during July 2023 and the mean temperature was warmer than the normal. The El Nino Southern Oscillation (ENSO) was in the positive phase while the Indian Ocean Dipole (IOD) and the Subtropical Indian Ocean Dipole (SIOD) were in the neutral phase. The Madden Julian Oscillation evolved in the Indian Ocean during the first fortnight of the month.

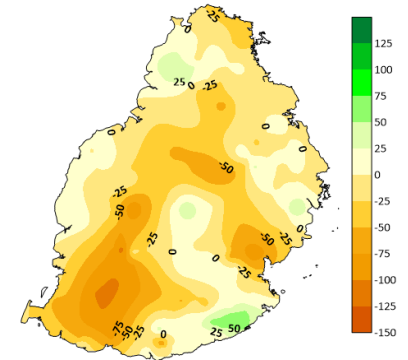
Monthly rainfall



Rainfall

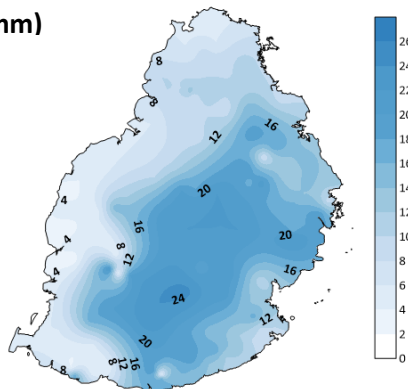
Normal rainfall was recorded in July 2023, amounting to 121 mm and which represents 92 % of the long-term mean. However, rainfall was deficient by 25-75 mm mainly over the central plateau and to the south east of the island and locally in excess by about 25 mm. About one fifth of the total rainfall was recorded in the first fortnight and the remaining amount in the second fortnight. One heavy rainfall episode was recorded during the month, namely on 17 July.

Monthly rainfall Anomaly

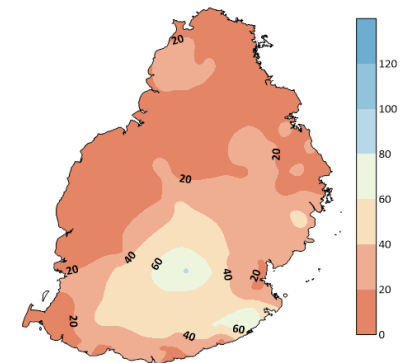


The highest cumulative rainfall for the month was 283.3 mm recorded at Union Park MSIRI.

Rainfall days (> 1 mm)



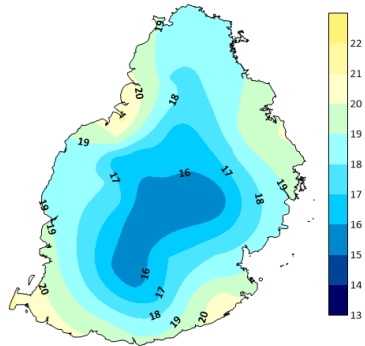
Highest 24-hour Rainfall



The highest number of rainy days (≥ 1 mm) was observed at Union Park MSIRI and Bois Cheri with 25 and 24 rainy days respectively. Elsewhere the number of rainy days varied between 2 and 23. Mostly slight rain was recorded during the month.

Highest 24-hour rainfall was 82.6 mm recorded at Union Park MSIRI on 17 July 2023.

Minimum Temperature



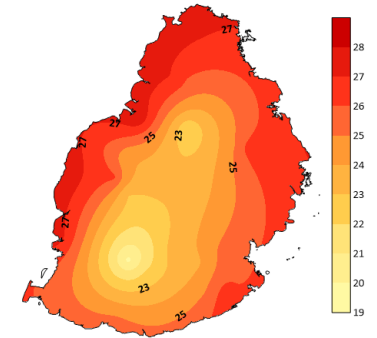
Temperature

The mean temperature over the island was 0.85 °C warmer than the LTM of 1991-2020. The mean minimum temperature and the mean maximum temperature were 0.6 °C and 1.1 °C warmer than the normal respectively.

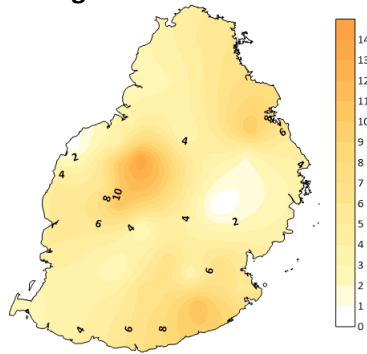
The highest maximum recorded was 30.4 °C at Port Louis on Day 11. The lowest maximum temperature recorded was 17.8 °C at Grand Bassin on Day 23.

The highest minimum was 23.4 °C at Champs de Mars on Day 15 and the lowest minimum was 11.7 °C at Mon Bois on Day 01.

Maximum Temperature



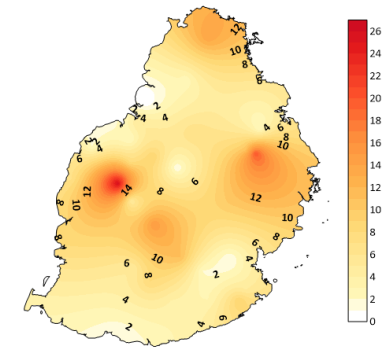
Warm nights



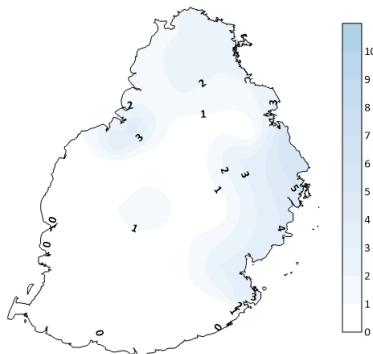
A few warm nights were observed during the month with the highest being 14 warm nights at Mon Desert Alma.

Days were particularly warm during the month especially to the east, over parts of the central plateau and the western regions. The highest number of warm days was 26 at Quatre Bornes and 20 at Queen Victoria.

Warm days



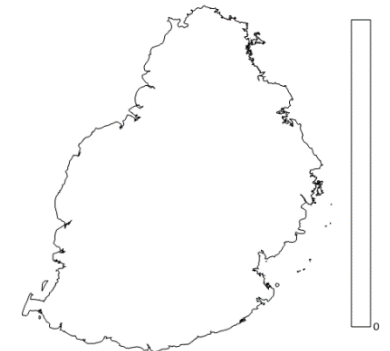
Cold nights

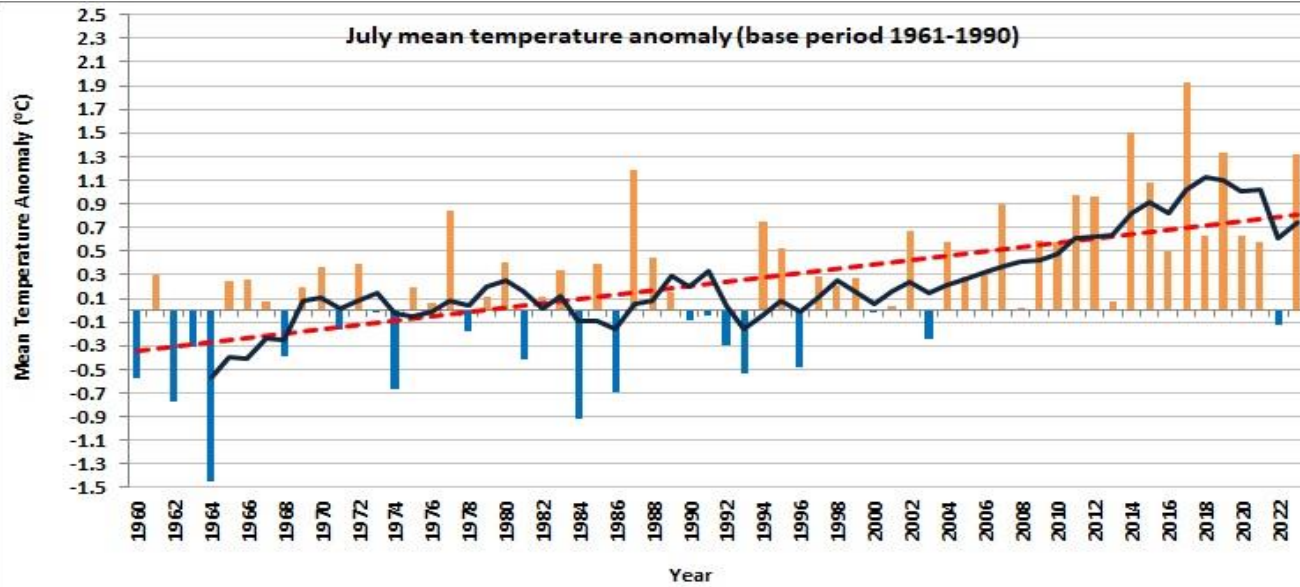


A few cold nights were recorded during the month particularly to the north and east of the island. The highest number of cold nights was 8 at Pamplemousses and 6 at Belle Mare.

There was no cold day was recorded during the month.

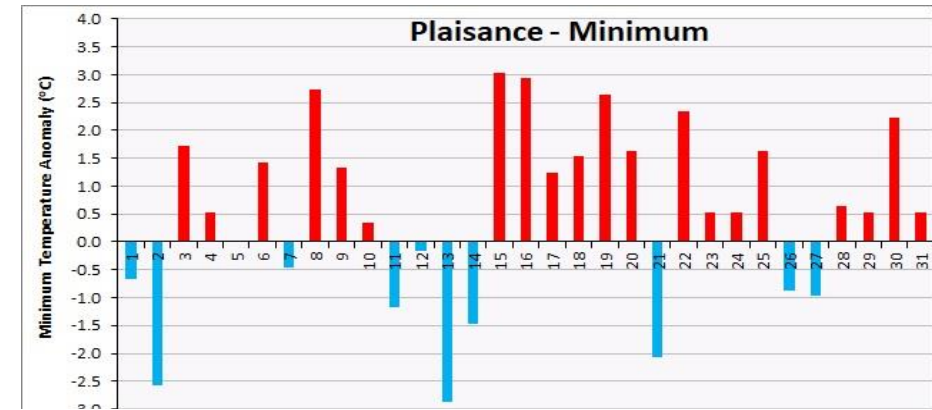
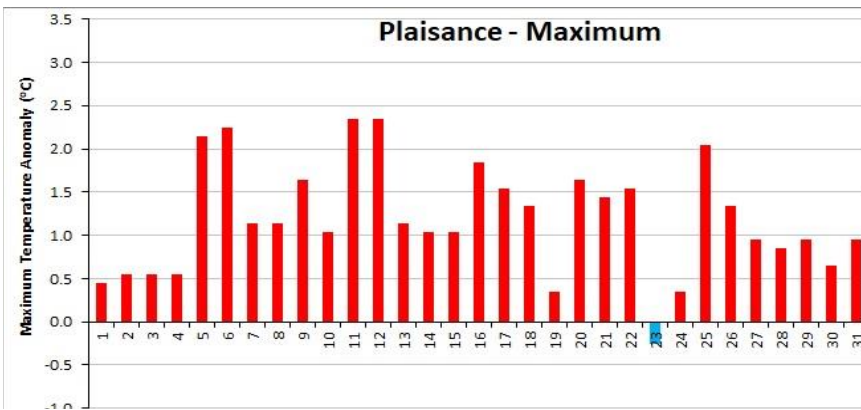
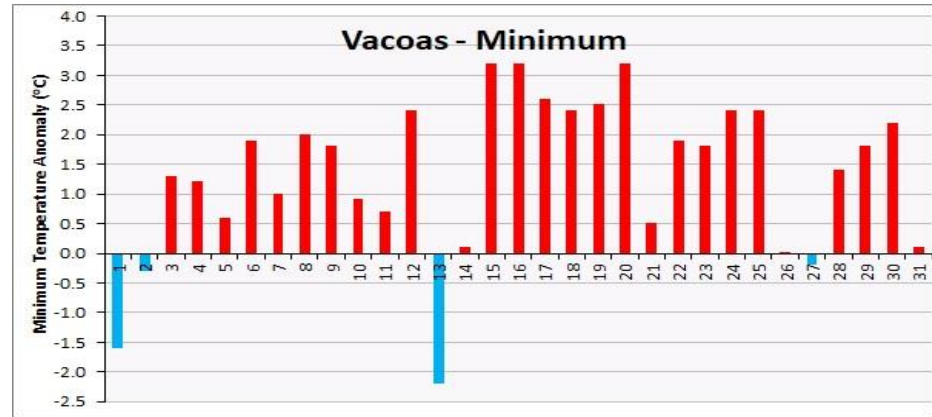
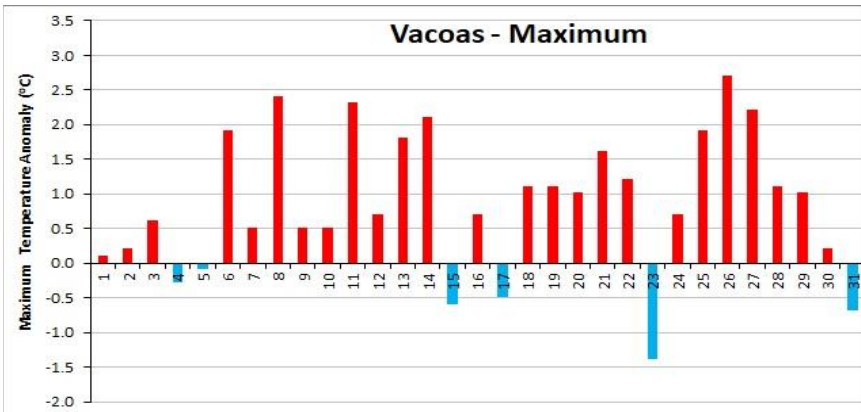
Cold days





July 2023 was the fourth warmest since the last 36 years. Daytime and night time temperatures were most of the time warmer both at Plaisance and Vacoas. On several occasions, both stations stat recorded positive anomalies of higher than 2 °C in both the maximum and minimum temperatures at.

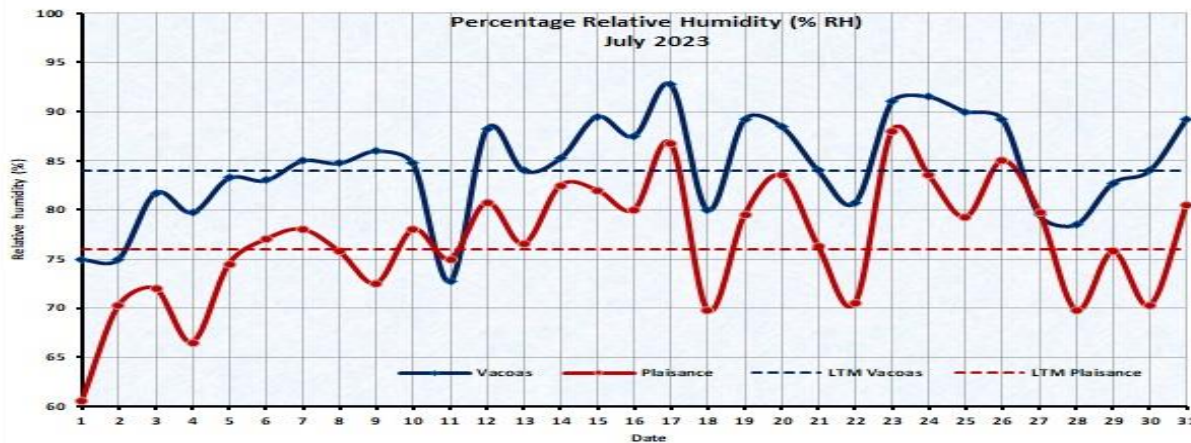
However, on a few occasions, a significant drop in the minimum temperature of about 1.5 to 2.7 °C were noted both at Vacoas and Plaisance



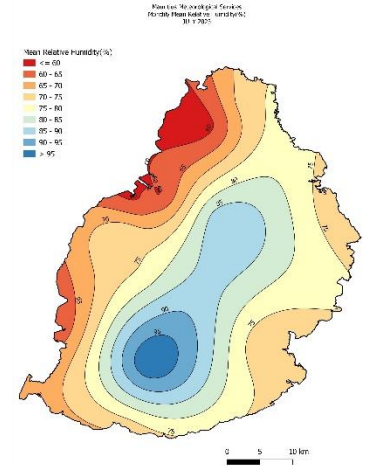
Sunshine and Humidity

On average the mean relative humidity for the month was close to the normal both at Vacoas and Plaisance. The daily humidity ranged from 73 to 93 % at Vacoas and from 61 to 88 % at Plaisance.

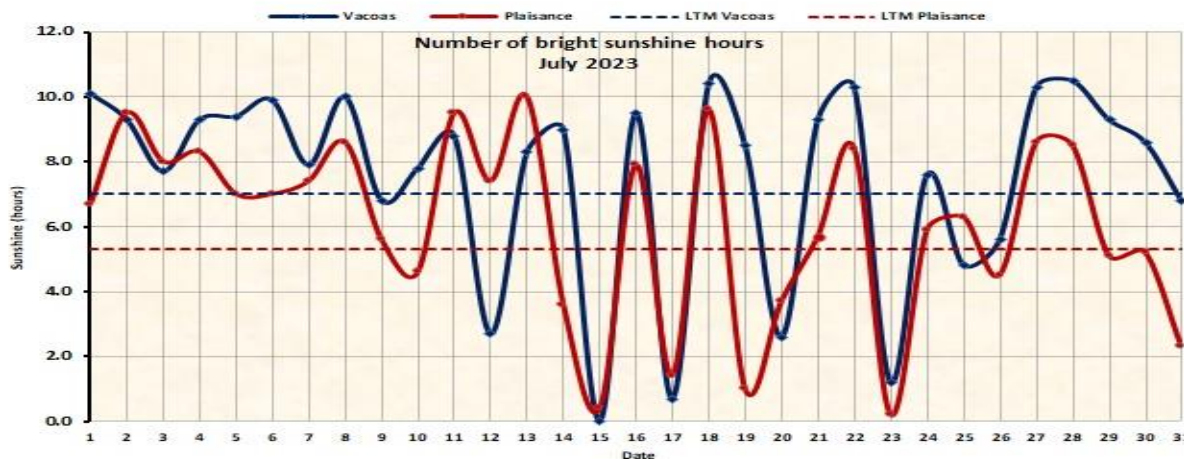
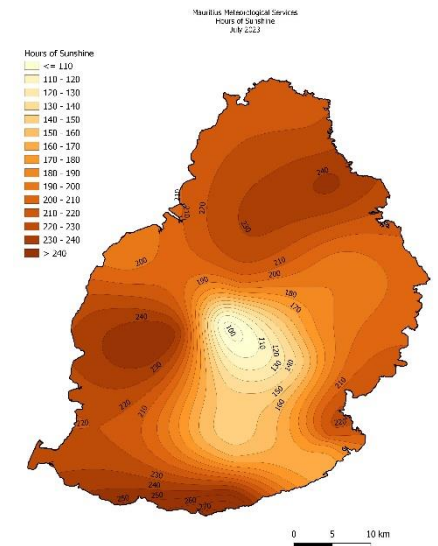
The number of daily bright sunshine hours were 107 % of the normal at Vacoas and 114 % at Plaisance (anomaly of +0.5 at Vacoas and +0.8 at Plaisance). The highest number of sunshine hours at Vacoas was 10.5 (recorded on Day 28) and 10.0 at Plaisance (recorded on Day 13). The lowest number of sunshine hours was 0.0 at Vacoas (recorded on Day 15) and 0.2 at Plaisance (recorded on Day 23). The total number of monthly bright sunshine hours was 233.0 at Vacoas and 187.9 at Plaisance.



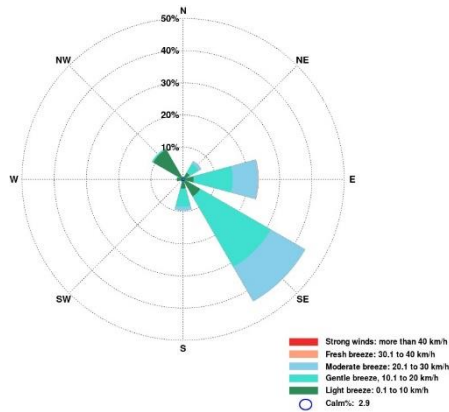
Monthly mean humidity



Monthly total sunshine hours



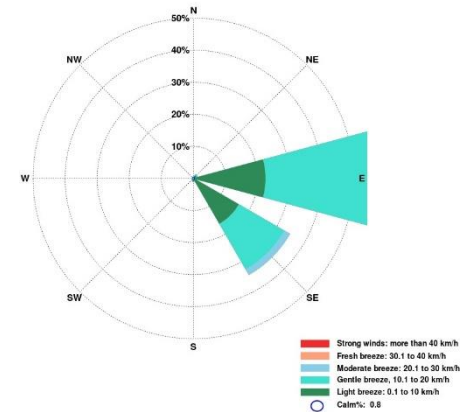
Winds



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

The highest gusts recorded over the island were as follows:

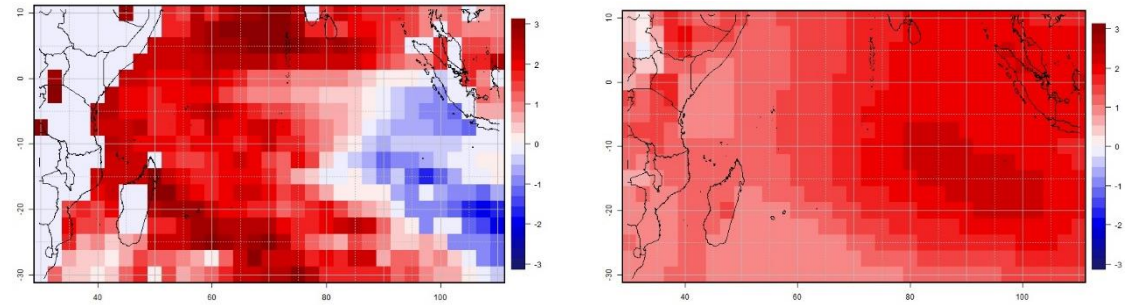
Regions	Highest gusts (km/h)	Date
Dom. les Pailles	72	16
Champ de Mars	65	8, 23
Vacoas	64	18
St. Felix	58	17
Q. Victoria	54	23
M. Loisir Rouillard	54	18
N. Decouverte	54	18
Grand Bassin	54	16, 17
Riv. Noire	54	19



FORECAST FOR SEPTEMBER-OCTOBER-NOVEMBER (SON)

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

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



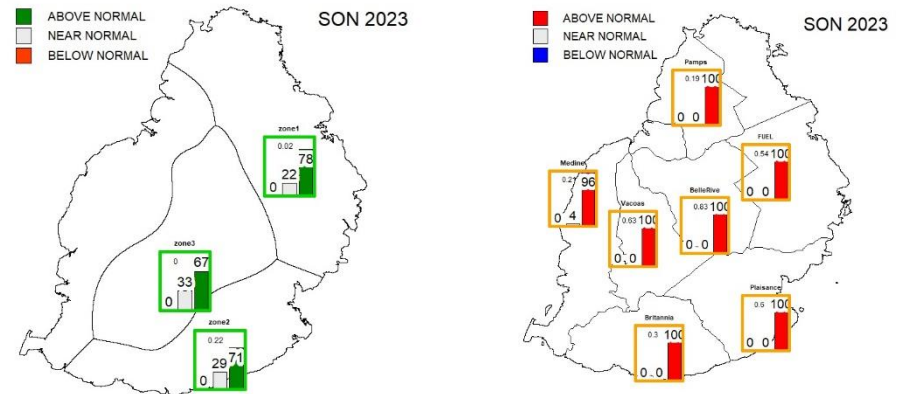
(a) Sea surface temperature and (b) pressure anomaly charts for SON

Consensus forecast for Mauritius

Cumulative rainfall for September to November is expected to be slightly below normal. The monthly rainfall forecast consensus is as follows: -

- September: well below normal (~ 54 mm)
- October: slightly above normal (~ 90 mm)
- November: normal (~ 76 mm)

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



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

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