



**STATEMENT OF THE SEVENTH SESSION OF THE
SOUTH-WEST INDIAN OCEAN CLIMATE OUTLOOK FORUM
(SWIOCOF-7)
MAURITIUS,
17-20 SEPTEMBER 2018**

SUMMARY

Climate information

From October through January (2018/19):

- For **October-November-December** season (OND), normal to above normal rainfall is likely over most of the South West Indian Ocean (SWIO) region, except for western part of Madagascar, southern part of Mozambique and South-Africa where normal precipitation are expected.
- For **November-December-January** season (NDJ), normal to above normal rainfall is likely over most of the South West Indian Ocean region, except for southern part of Mozambique and South-Africa where normal precipitation are expected.
- The mean temperatures are very likely to be above the seasonal mean over most of the region.
- Near normal cyclone activity is expected during the coming cyclonic season.

THE SEVENTH ANNUAL SOUTH WEST INDIAN OCEAN REGIONAL CLIMATE OUTLOOK FORUM

The Seventh Southern Western Indian Ocean Climate Outlook Forum (SWIOCOF-7) was held in Ebene, Mauritius, 17-20 September 2018 to prepare a consensus outlook for the 2018/2019 rainfall season over the SWIO region. Climate scientists from the SWIO National Meteorological and/or Hydrological Services (NMHSs), Meteo-France, and Southern Africa Development Community (SADC) secretariat formulated this outlook. Additional inputs were considered from global climate prediction centres (GPCLRFs) namely, European Centre for Medium Range Weather Forecast (ECMWF), Météo-France, Bureau of Meteorology from Australia (BoM), International Research Institute for Climate and Society (IRI) and Copernicus Climate Change Services (C3S). This outlook covers the major rainfall season from October 2018 through January 2019. The outlooks are presented in three-monthly rolling periods as follows: October-November-December (OND); November-December-January (NDJ).

This Outlook is relevant only to seasonal (overlapping three-monthly) time-scales and relatively large areas and may not fully account for all factors that influence regional and national climate variability, such as local and month-to-month variations (intra-seasonal).

Users are strongly advised to contact the National Meteorological and Hydrological Services for interpretation of this Outlook, additional guidance and updates.

METHODOLOGY

Using statistical and other objective climate prediction methods, as well as expert interpretation, the climate scientists attending the SWIOCOF determined the likelihoods of above-normal, normal and below-normal rainfall and other parameters relevant to the region such as Temperatures for each area for rolling three monthly periods i.e. October-November-December (OND – Figure 1), November-December-January (NDJ – Figure 2). Above-normal category is defined as lying within the highest third of record (30 year mean, that is, 1981-2010) of a given parameter ; below-normal is defined as within the lowest third of the parameter and normal is the middle third, centred on the climatological median.

The outlook for Tropical Cyclone (TC) Activity over SWIO basin (30°E,90°E/0°S,-40°S) is provided for the upcoming cyclonic season (Nov-April).

The climate scientists took into account oceanic and atmospheric factors that influence our climate over the SWIO region, in particular the El Niño-Southern Oscillation (ENSO) and regional climate drivers such as the Indian Ocean Dipole (IOD) and the Subtropical Indian Ocean Dipole (SIOD).

OUTLOOK

The period of October to January over the SWIO region is typically a transition period before the main rainy season (January to March). This season (JFM) is also being referred to as the peak of the cyclonic season. The present outlook considers two following overlapping seasons (i.e. OND and NDJ).

CURRENT STATUS OF THE CLIMATE SYSTEM

Following a weak La Nina event early this year, neutral conditions prevail over the Equatorial Pacific. However, SST pattern shows a warming towards a weak El Nino event. The other two main climate drivers acting over the Indian Ocean (IOD and SIOD) are observed to be close to neutral. In addition, a persistent positive SST anomaly is observed in the South Western part of the Indian Ocean.

EXPECTED EVOLUTION OF THE MAIN CLIMATE DRIVERS FOR SWIO REGION

Most global climate models suggest that :

- conditions in the central Pacific are expected to be close to El Niño threshold and it may not persist beyond the austral summer period.
- both IOD and SIOD is likely to stay close to normal conditions by the end of December.
- the South West positive SST anomaly is expected to persist through the OND and NDJ periods.

Consequently, the atmospheric response to these weak oceanic forcings is expected to be limited over the South West Indian Ocean.

OUTLOOKS for OND 2018 and NDJ 2018/2019

Based on SST anomalies, sub-surface temperature patterns, knowledge and understanding of seasonal climate variability over the South West Indian Ocean region as well as available long range forecasts products, the following outlooks are provided for October 2018 to January 2019 precipitation, temperature and the upcoming cyclonic season (2018/2019).

Precipitation :

OND 2018 :

- For October-November-December season (OND), normal to above normal rainfall is likely over most of the South West Indian Ocean (SWIO) region, except for western part of Madagascar, southern part of Mozambique and South-Africa where normal precipitation are expected.

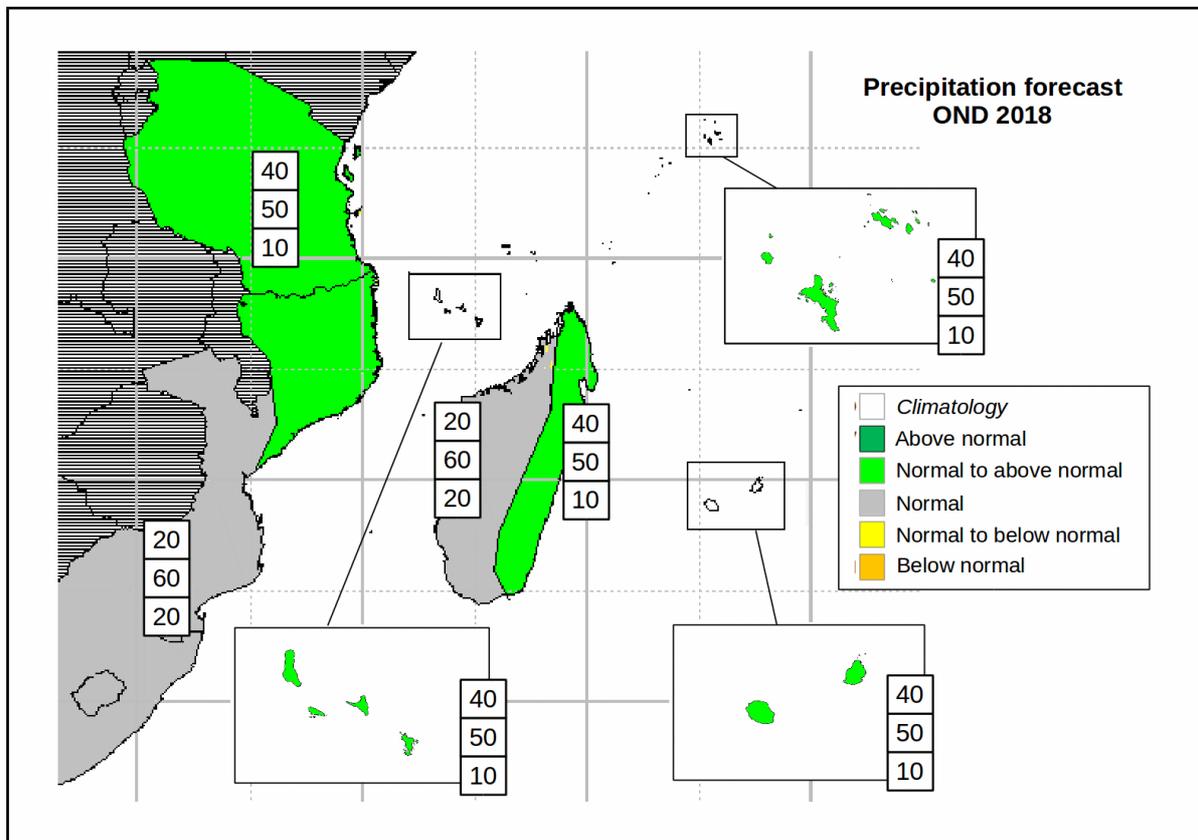


Figure 1 : Consensus forecast of precipitation for OND 2018 in SWIO region

NDJ 2018/19 :

- For November-December-January season (NDJ), normal to above normal rainfall is likely over most of the South West Indian Ocean region, except for southern part of Mozambique and South-Africa where normal precipitation are expected.

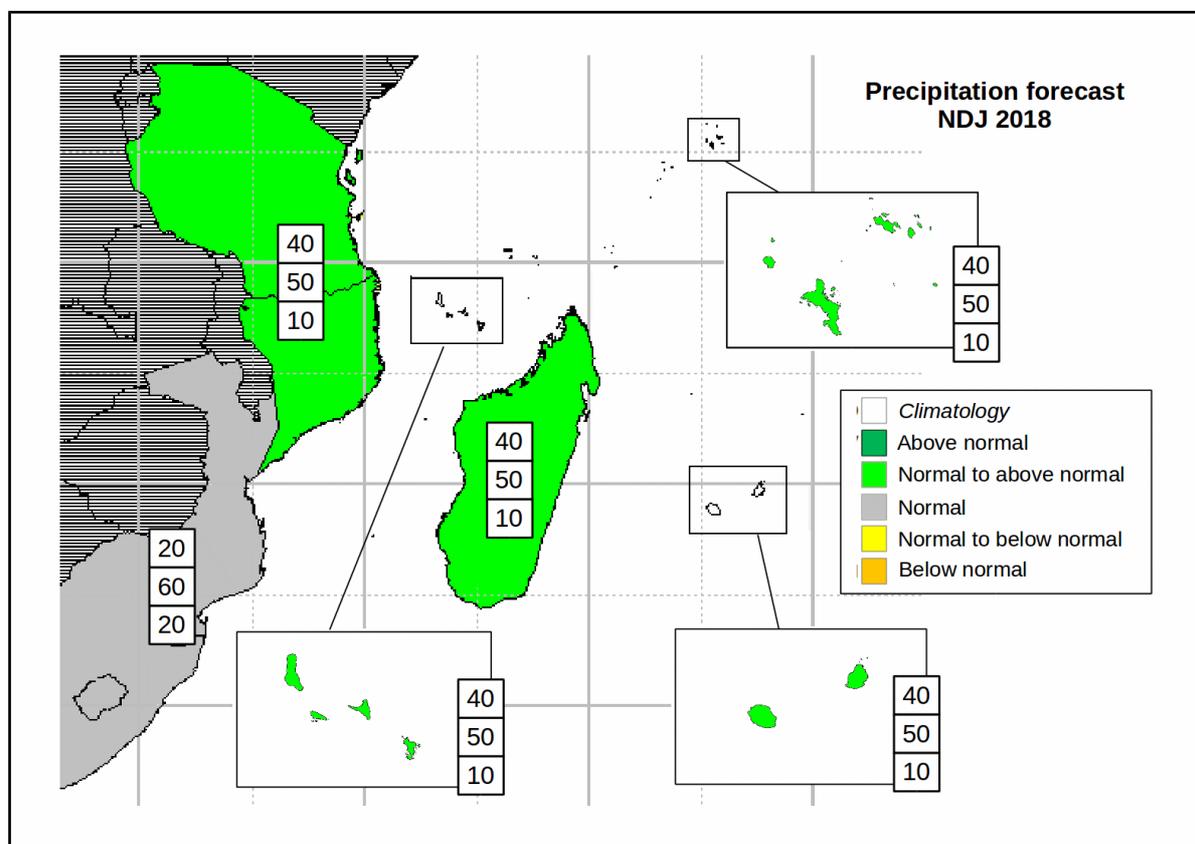


Figure 2 : Consensus forecast of precipitation for NDJ 2018/2019 in SWIO region

Cyclone activity :

The number of tropical storms or cyclones is likely to be near average (around 10 named systems) over the SWIO region.

However, the atmospheric large scale conditions over the Equatorial Eastern Indian Ocean basin may be unfavourable for TC genesis over the eastern part of the TC basin (East of 70°E).

Temperatures :

The mean temperatures are very likely to be above the seasonal mean over most of the region. Number of warm days (exceeding the 90th percentile of daily maximum temperature) is expected to be above normal over most of the maritime areas of SWIO region.

This outlook is produced at the regional scale. Thus, its interpretation should be for regional use. For local and/or country adaptation and applications needs, it is highly recommended to consult the National Meteorological and Hydrological Services for local details and updates.

An outlook update specific to the cyclone activity will be provided by RSMC Reunion in November 2018 at <http://www.meteofrance.re/climat/previsions-saisonnieres>