



Our ref: PV/MET/METEO-GEO/100 (a)

25th October 2024

Vanuatu National Statement on Climate and Tropical Cyclone Seasonal Outlook for 2024/2025 Season

Vanuatu is likely to have two to four (2-4) TCs and Neutral ENSO conditions / weak La Niña-like conditions for 2024 – 2025 season.

Key Messages:

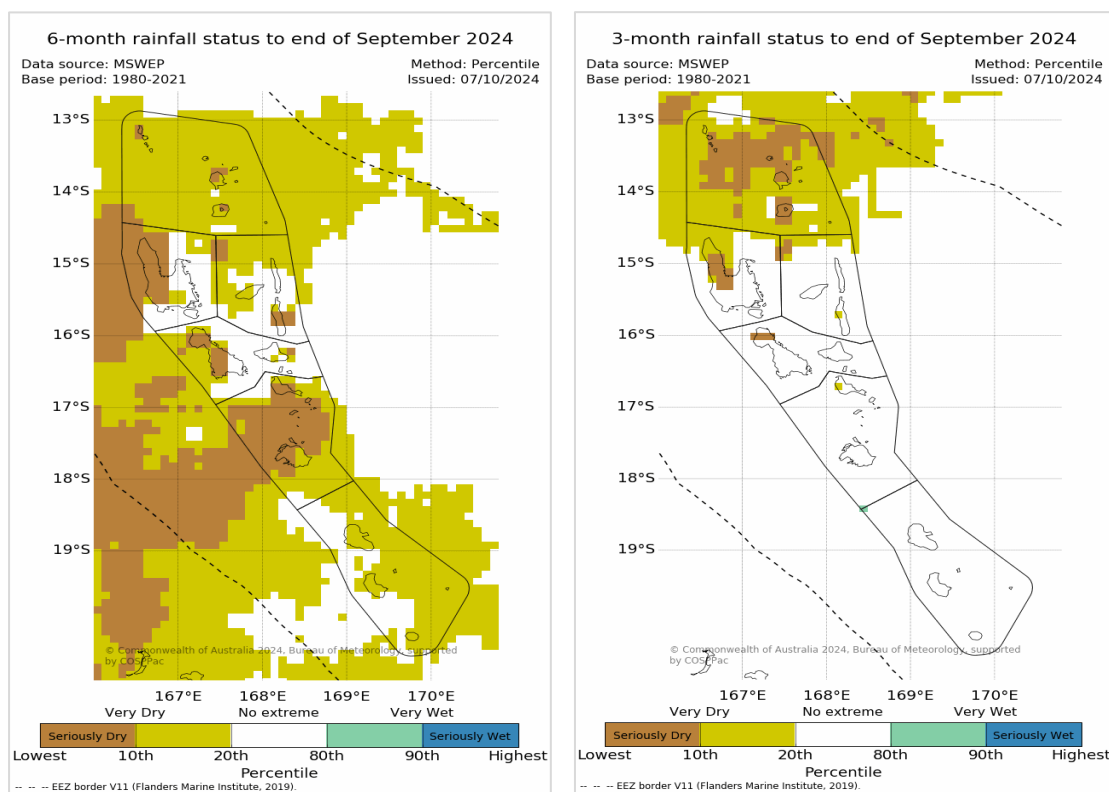
1. It is likely that 2-4 named tropical cyclones will pass in the Vanuatu's tropical cyclone area of responsibility in the upcoming tropical cyclone season, from 1st November 2024 to 30th April 2025.
2. The tropical cyclone risk for Vanuatu for the upcoming tropical cyclone season 2024-2025, is "normal risk".
3. At least expect one cyclone to reach a category 3 or higher in intensity.
4. Historically, the peak Tropical Cyclone season for Vanuatu is usually from January to March.
5. The official tropical cyclone season for Vanuatu is from 1st November to 30th April. However, Vanuatu has experienced cyclones forming outside this period (e.g., TC *Liua* in September 2018, TC *Donna* in May 2017, TC *Lola* in October 2023).
6. Currently, ENSO (El Niño – Southern Oscillation) conditions are neutral; however, climate models suggest sea surface temperatures (SSTs) in the tropical Pacific are likely to exceed the La Niña threshold from October - November. Should a La Niña develop in the coming months, it is forecast to be relatively weak (in terms of the strength of the SST anomaly) and short-lived, with all models indicating a return to ENSO Neutral conditions by February. Thus, Vanuatu could expect average to slightly above average rainfall conditions for much of the country for the next 3 to 6 months.
7. Air temperatures are also very likely to be above normal
8. Sea level is expected to be higher than normal until February 2025 but forecast to be below normal from March 2025.
9. With expected Neutral ENSO conditions / weak La Niña-like conditions and average risk for tropical cyclones, there is still a possibility for flooding and extreme winds that can cause damages to different sectors and impact the socioeconomic livelihoods of the people.
10. Low pressure systems that do not reach cyclone intensity may also cause widespread and extensive damages.
11. Government through NDMO clusters with partners to start planning on cyclone preparedness and response.
12. VMGD will continue to monitor the evolution of the ENSO and update the cyclone guidance accordingly. All communities shall remain vigilant and well prepared.

¹ Knutson, T. R. et al. 2015. Global Projections of Intense Tropical Cyclone Activity for the Late Twenty-First Century from Dynamical Downscaling of Late Twenty-First Century from Dynamical Downscaling of CMIP5/RCP4.5 Scenarios CMIP5/RCP4.5 Scenario. *Journal of Climate*. DOI: 10.1175/JCLI-D-15-0129.1.

Climate in review – May to October 2024:

According to the April PICOF 14 regional statement, the outlook was for La Niña developing in the second half of this year (2024) preceded by a period of ENSO neutral conditions.

Rainfall for Vanuatu was mostly below normal for the last 6 months. This is a typical impact of El Niño event. Some parts of the country especially western Santo, Malekula and Shepherd islands experienced drought conditions. reports of water shortage or drought conditions were observed over Torba province.

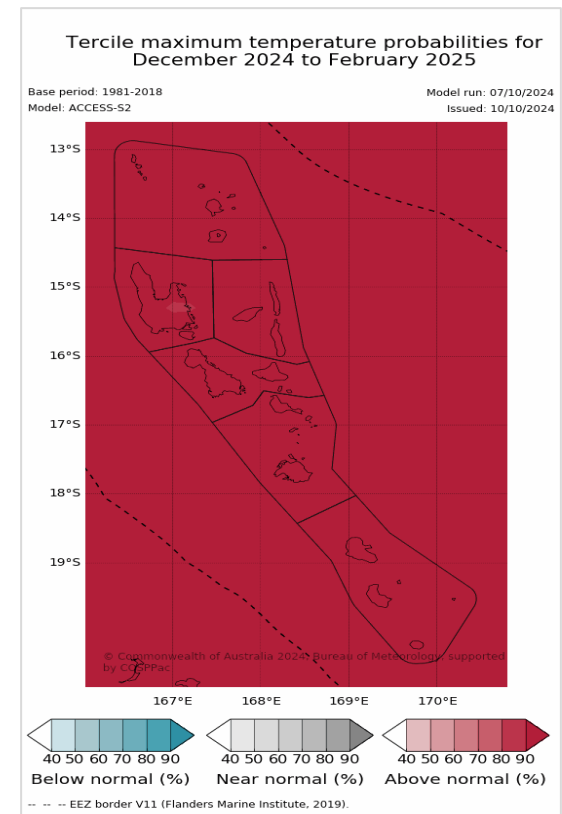
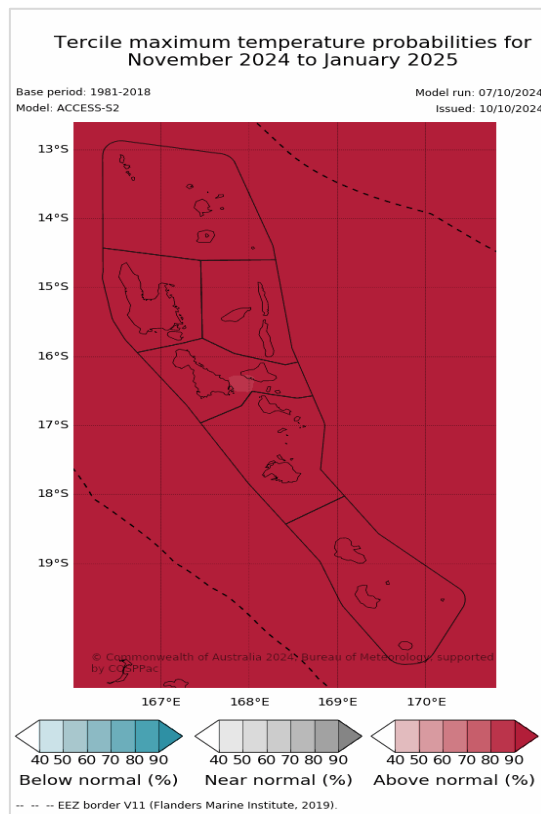
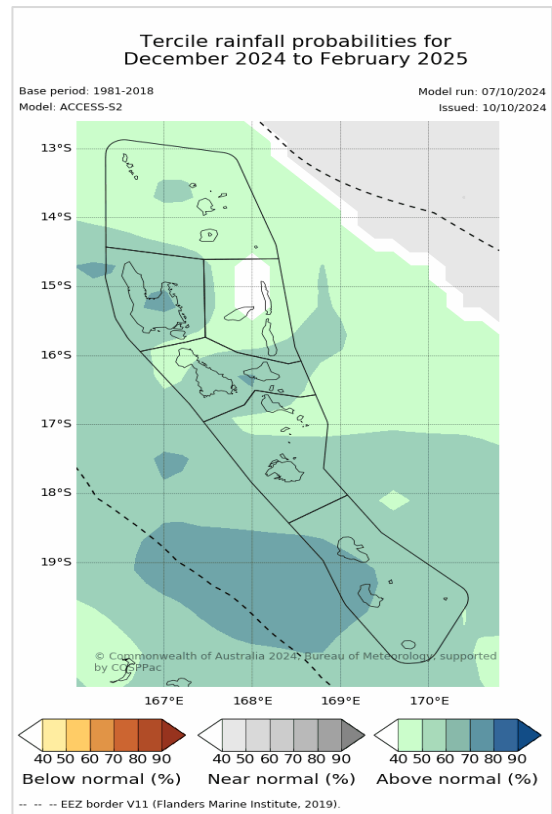
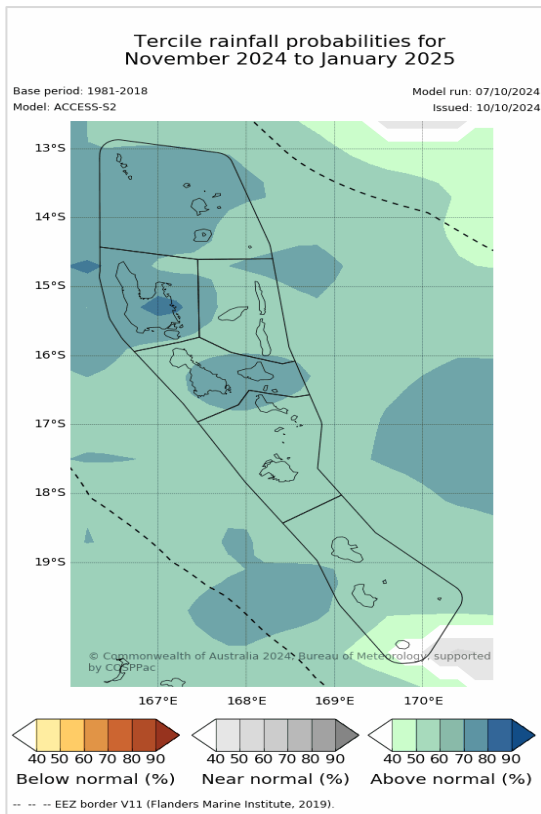


- Atmospheric Temperature was above normal for most parts of the country.
- Sea surface temperature were 0.5 to 1.° C above average.
- Sea level is below normal for the northern part of Vanuatu while the southern part of normal.
- At least Coral Bleaching Alert Level 2 affected the Northern Vanuatu.

Climate outlook – November 2024 to April 2025:

- Rainfall outlook to February 2025 is very likely to be above normal for Vanuatu. Above normal rainfall will be more pronounced over Torba, Sanma and Malampa province.
- Maximum and Minimum Atmospheric Temperatures are expected to be above with a difference of 1°C above average for the next 3 – 6 months.
- Sea surface temperature is expected to be 0.8 – 1.2°C above average for the next six months to the first quarter of 2025.
- Sea level is forecasted to be generally above normal; with coral bleaching outlook up to December 2024 is expected to remain at No Alert.

¹ Knutson, T. R. et al. 2015. Global Projections of Intense Tropical Cyclone Activity for the Late Twenty-First Century from Dynamical Downscaling of Late Twenty-First Century from Dynamical Downscaling of CMIP5/RCP4.5 Scenarios CMIP5/RCP4.5 Scenario. *Journal of Climate*. DOI: 10.1175/JCLI-D-15-0129.1.



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Tropical Cyclone Season Outlook:

It is likely that **2 – 4** named Tropical Cyclones will pass in the Vanuatu Area of Responsibility (AoR) this cyclone season. The tropical cyclone risk for Vanuatu for the upcoming season is “**normal risk**”. This means that the predicted number of TCs for this season falls within the *average range* of the number of TCs Vanuatu experiences every year.

The official tropical cyclone season for Vanuatu is from 1st November to 30th April. However, Vanuatu has experienced cyclones forming outside this period (e.g., TC *Liua* in September 2018, TC *Donna* in May 2017, TC *Lola* in October 2023). In general, the peak Tropical Cyclone season for Vanuatu is usually from January to March. However, cyclone formation is rarely spread evenly throughout the season; often quiet periods are followed by bursts of activity, e.g. TCs Judy and Kevin in February – March 2023.

Studies have shown that Climate Change may also affect tropical cyclones in a variety of ways; an intensification of rainfall and wind speed, a decrease in overall frequency but an increase in frequency of very intense storms are among the possible consequences of human-induced climate change¹.

Note: Studies have shown that Traditional Knowledge (Local Knowledge) based on behaviour of certain Fauna (animals) and Flora (plants) can be used as indicator for immediate onset of developing or approaching tropical cyclone in some islands of Vanuatu. Traditional Indicators for cyclones include over abundant of fruits example mango, ground nesting of Pacific Emerald Dove.

Potential Impacts:

Tropical cyclones affecting any islands of Vanuatu will bring significant rainfall, extreme damaging winds, hazardous marine conditions and coastal damages that are possible. With expected Neutral ENSO conditions / weak La Niña-like conditions and average risk for tropical cyclones, there is still possibility for flooding and extreme winds that can cause damages to different sectors and impact the socioeconomic livelihoods of the people.

Past experiences have shown that the impacts of Tropical cyclones are detrimental to social and economic lives of Vanuatu. Therefore, all communities should remain alert and well-prepared for potential severe tropical cyclone events. Remember, only one event can cause lots of damage and loss of lives. Communities should be vigilant, weather-ready and take all necessary precautionary measures; and follow forecast updates provided by the Vanuatu Meteorology and Geo-hazards Department (VMGD).

Monthly updates will be made available in the monthly climate bulletin and briefings. Information will also be available at the community climate centres and notice boards.

For more Information:

Contact the Climate Services Division (CSD) on +678 24686 and climate@meteo.gov.vu and the National Disaster Management Office (NDMO) on +67822699 and ndmo.im@gmail.com .

END

¹ Knutson, T. R. et al. 2015. Global Projections of Intense Tropical Cyclone Activity for the Late Twenty-First Century from Dynamical Downscaling of Late Twenty-First Century from Dynamical Downscaling of CMIP5/RCP4.5 Scenarios CMIP5/RCP4.5 Scenario. *Journal of Climate*. DOI: 10.1175/JCLI-D-15-0129.1.