



Climate Outlook 2024



March
&
March - May 2025

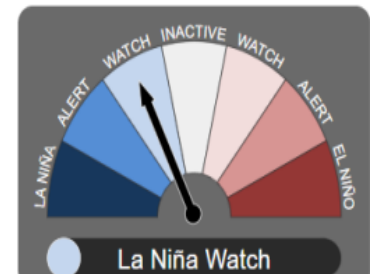
Issued: 10 February 2025

Climate in January 2025

- Tropical Depression TD03 and TD04 brought heavy rain to the northern islands resulting in extremely high rainfall to the Niuaus during January.
- Mostly average to above average rainfall was received across the country during December.
- The highest 24 hour rainfall was 269.9mm recorded in Niuatoputapu on the 7th. This is the second highest January rainfall throughout the country.
- The mean air temperature was 25.7°C which was 1.2°C cooler than average.
- Highest maximum temperature was 33.5°C recorded at Lapaha on the 24th.
- Lowest temperature was 16.2°C recorded at Fuaa'amotu on the 12th.

ENSO Status

- El Niño-Southern Oscillation (ENSO) remains neutral. While many of the indicators have recently met the threshold for La Niña they have not been sustained for levels or duration sufficient to warrant La Niña status.
- Since late December, conditions across the tropical Pacific have been more La Niña like, with both oceanic and atmospheric indicators beginning to align. However, until a sustained atmospheric and oceanic response is observed, the ENSO status remains neutral.



Rainfall totals for the last six months, August 2024 to January 2025

	August	September	October	November	December	January
Niuafo'ou	165.0	106.0	n/a	n/a	n/a	n/a
Niuatoputapu	50.0	148.5	128.5	156.0	141.1	623.9
Vava'u	109.1	144.6	60.9	155.6	272.2	249.6
Ha'apai	18.5	87.6	87.3	84.7	135.0	178.8
Fua'amotu	93.8	87.8	383.7	145.0	162.0	236.7
Nuku'alofa	159.0	64.0	387.0	126.0	107.5	121.0
'Eua	208.5	128.5	587.6	147.7	131.5	284.0
	Below average		Average (usual)		Above average	

Rainfall & Temperature outlook for March & March to May 2025

- All international models surveyed forecast neutral ENSO (neither El Niño nor La Niña) from March until at least June.
- Average to above average rainfall is predicted for March 2025.
- The rainfall outlook March to May 2025 is consistent with rainfall patterns experienced during past La Niñas, refer to Fig1.
- Warmer than average maximum temperature, refer to Fig.2
- Sea level forecast shows average heights across Tongatapu to Vava'u waters, for the far southern Tonga waters shows 30-60mm above average. For the northern waters of Vava'u to the Niua's it is forecast to be 30-60mm below average, refer to Fig.3
- Sea surface temperature outlook is predicted to be 29°C. The convergence zone is normally located to the north of the Niua waters, but during the March to May 2025, it is forecast to be displaced south and between Vava'u and Niua waters, refer to Fig 4.

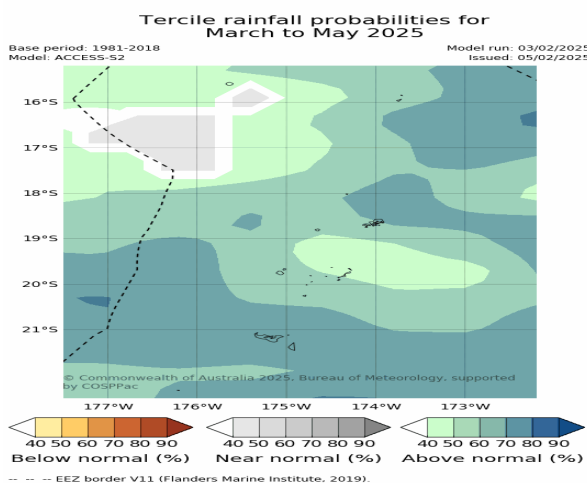


Fig 1. Rainfall Outlook

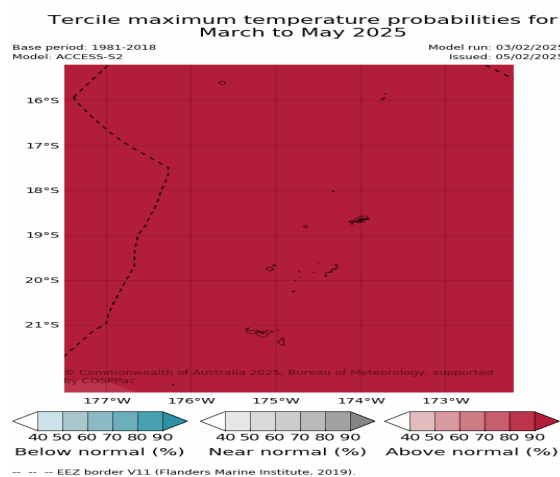


Fig 2. Maximum Temperature Outlook

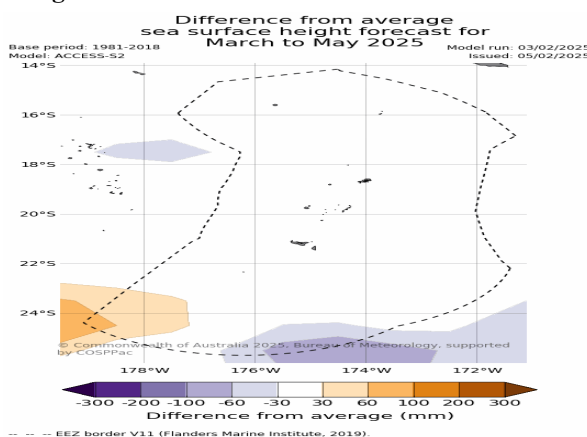


Fig 3. Sea Surface Height Outlook

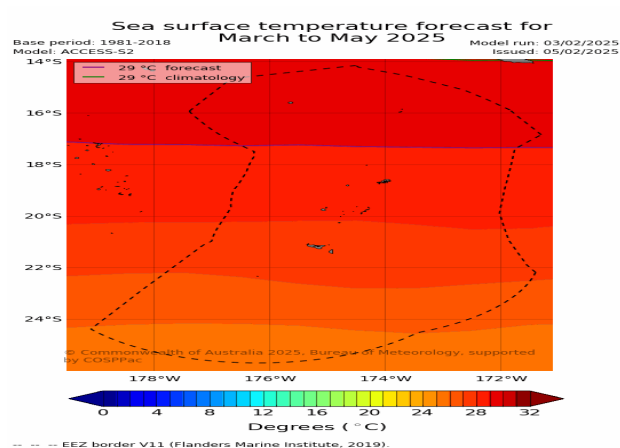


Fig 4. Sea Surface Temperature Outlook

The next Climate update will be issued second week of March 2025 or earlier

Disclaimer:

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