



# Climate Outlook 2024



February  
&

February - April 2025

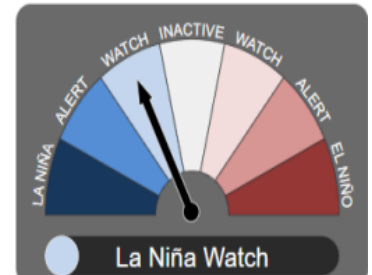
Issued: 22 January 2025

## Climate in December 2024

- Average to above average rainfall was received across the entire island Kingdom during December.
- The highest 24 hour rainfall was 80.4mm recorded in Ha'apai on the 26<sup>th</sup>.
- The mean air temperature was 25.3°C which was 1.2°C cooler than average.
- Highest maximum temperature was 32.2°C recorded at Lapaha on the 21<sup>st</sup>.
- Lowest temperature was 17.8°C recorded at Mo'unga 'Olive on the 31<sup>st</sup>.

## ENSO Status

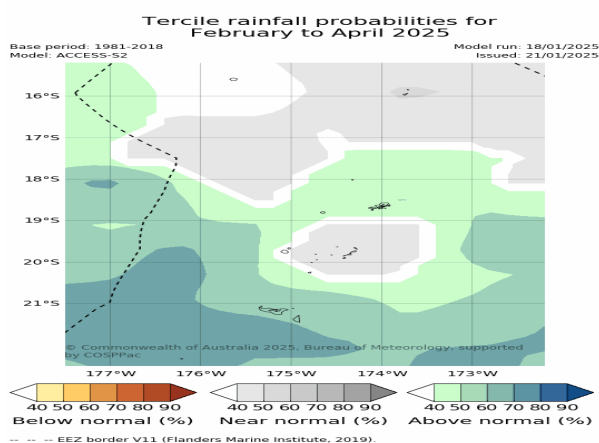
- The El Niño–Southern Oscillation (ENSO) has remained neutral for the past 6 months, despite changes in sea surface temperature patterns consistent with a developing La Niña.
- Since late December, conditions across the tropical Pacific have been more La Niña like, with both oceanic and atmospheric indicators beginning to align. However, until a sustained atmospheric and oceanic response is observed, the ENSO status remains neutral.



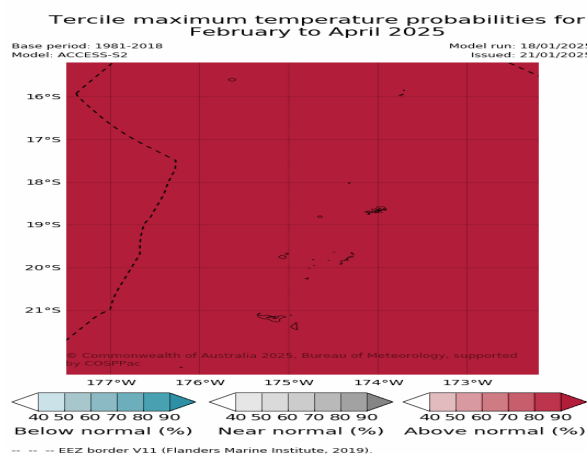
Rainfall totals for the last six months, July to December 2024						
	July	August	September	October	November	December
Niufo'ou	84.5	165.0	106.0	n/a	n/a	n/a
Niuatoputapu	119.5	50.0	148.5	128.5	156.0	n/a
Vava'u	85.1	109.1	144.6	60.9	155.6	272.2
Ha'apai	53.8	18.5	87.6	87.3	84.7	135.0
Fua'amotu	62.5	93.8	87.8	383.7	145.0	162
Nuku'alofa	66.5	159.0	64.0	387.0	126.0	107.5
'Eua	130.5	208.5	128.5	587.6	147.7	131.5
	Below average		Average (usual)		Above average	

# Rainfall & Temperature outlook for February & February—April 2024

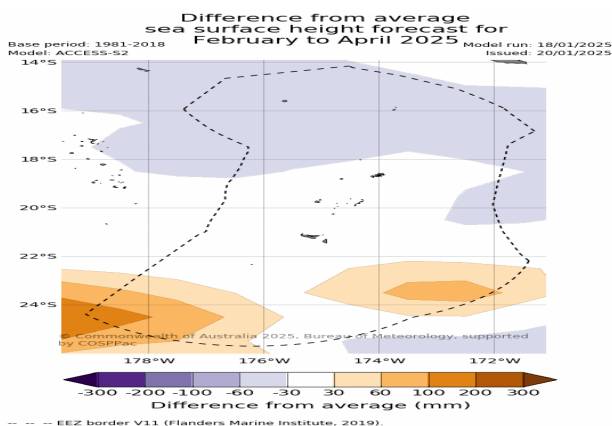
- All surveyed international models have a neutral ENSO outlook from March until at least June 2025.
- Average to above average rainfall is predicted for February 2025.
- The rainfall outlook February to April 2025 is consistent with rainfall patterns experienced during past La Niña's, refer to Fig1.
- 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 Niuas 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 February to April 2025, it is forecast to be displaced south and between waters of the Niuas and Vava'u waters, refer to Fig 4.



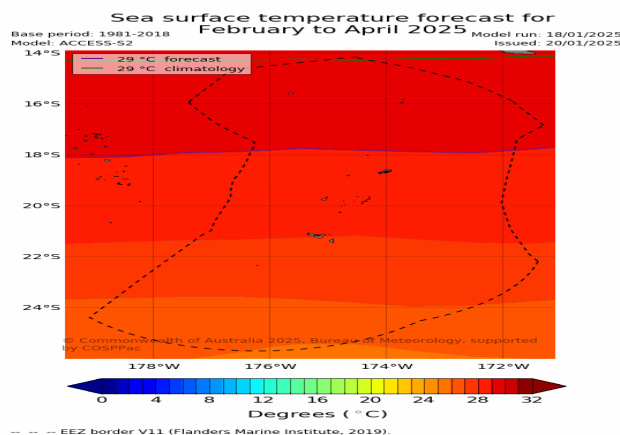
**Fig 1. Rainfall Outlook**



**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 February 2024 or earlier**

**Disclaimer:**

This summary is prepared as soon as possible following the end of the month, once climate data is received from recording stations around Tonga. Delays in data collection, communication and processing occasionally arise. While every effort is made to verify observational data, the Tonga Meteorological Service makes no statements, representations, or warranties about the accuracy or completeness of, and you should not rely on, any information contained in this report. Despite our best efforts, TMS makes no warranties that the information in this publication is free of numerical errors. TMS disclaims all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages and costs you might incur as a result of the information being inaccurate or incomplete in any way, and for any reason. This information should be used as a guidance only. For further information about this forecast should be directed to the Director of the Tonga Meteorological Service, at P.O. Box 1380, Nuku'alofa. Or email at [metstaff@met.gov.to](mailto:metstaff@met.gov.to) Tel: (676) 0800638/ 7400062 or our website: <http://www.met.gov.to> for more information.