



# NAURU METEOROLOGICAL & HYDROLOGICAL SERVICES



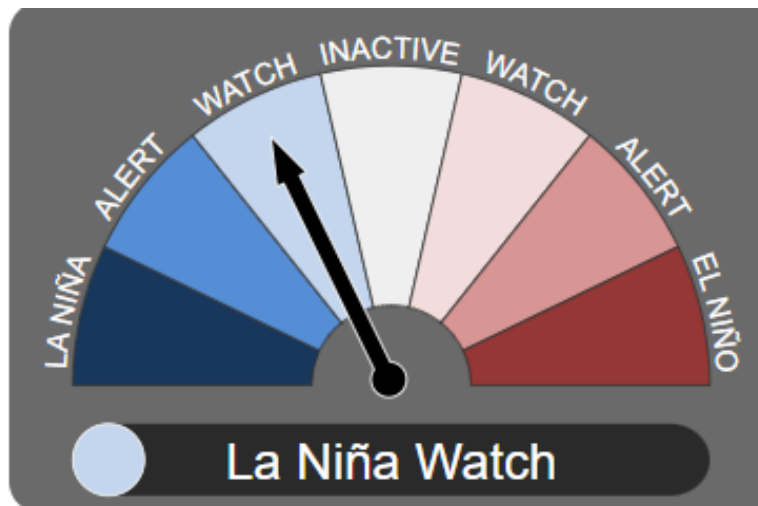
*The Early Action Rainfall Watch provides sector managers with a brief summary of recent rainfall patterns, particularly drought and the rainfall outlook for the coming months.*

**Issue Date: 11/11/2024**

## ENSO OUTLOOK

**Current El Nino - Southern Oscillation Status**

**ENSO**

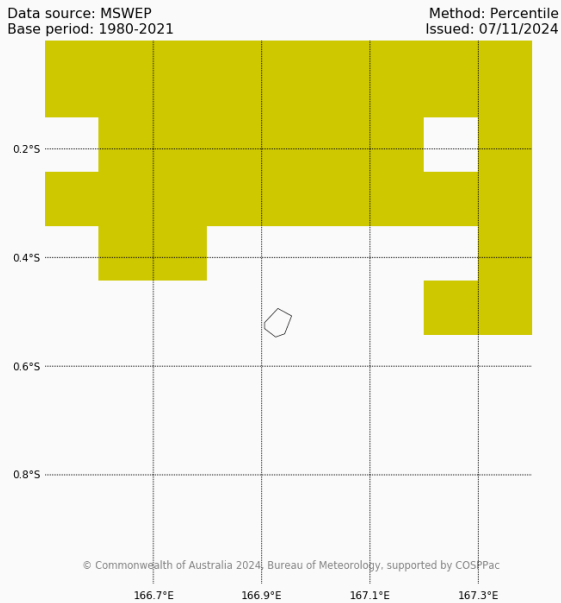


The ENSO outlook is at La Nina Watch

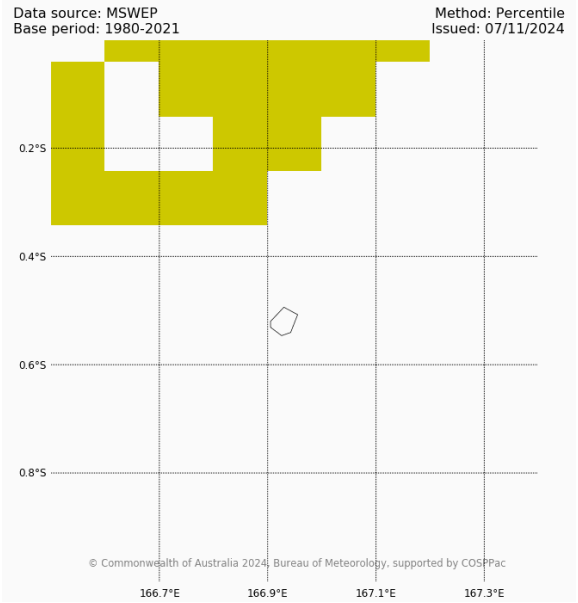
The ENSO Outlook is currently at 'La Niña Watch', meaning there are some signs that a La Niña might form in the Pacific Ocean later in 2024. A La Niña Watch does not guarantee that a La Niña will develop. Climate models suggest that SSTs in the central tropical Pacific are likely to continue to cool over the coming months.

# STATUS SUMMARY

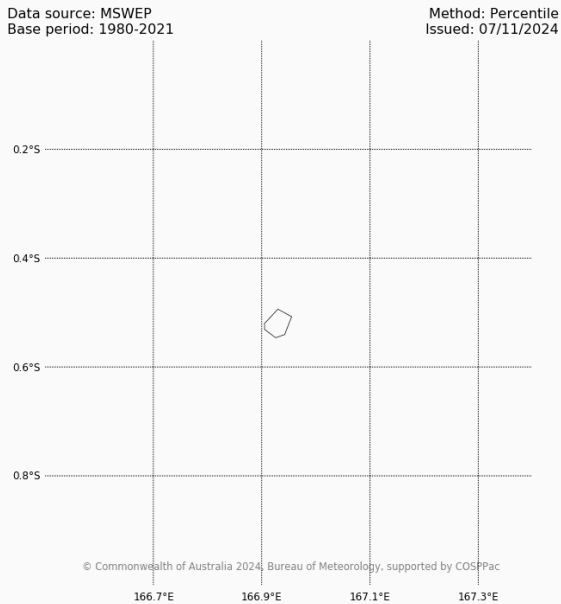
### Rainfall status for October 2024



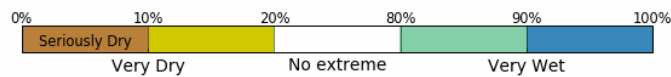
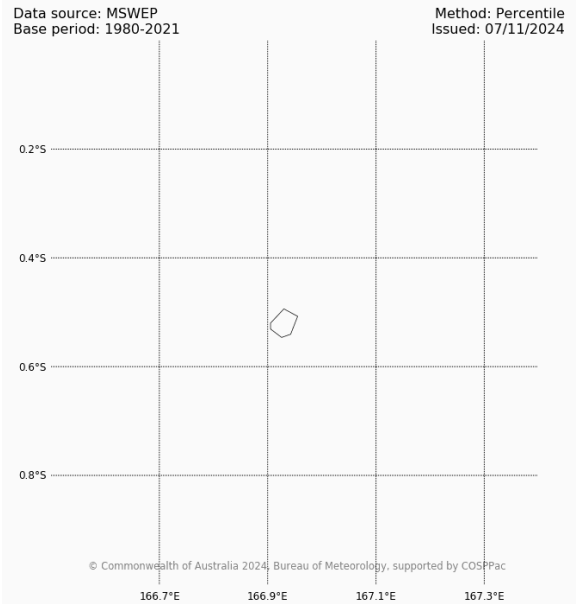
### 3-month rainfall status to end of October 2024



### 6-month rainfall status to end of October 2024



### 12-month rainfall status to end of October 2024



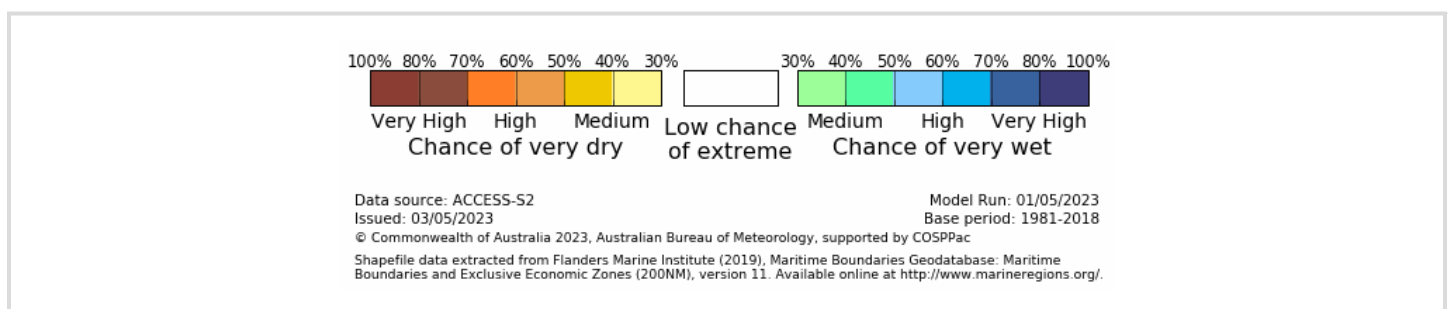
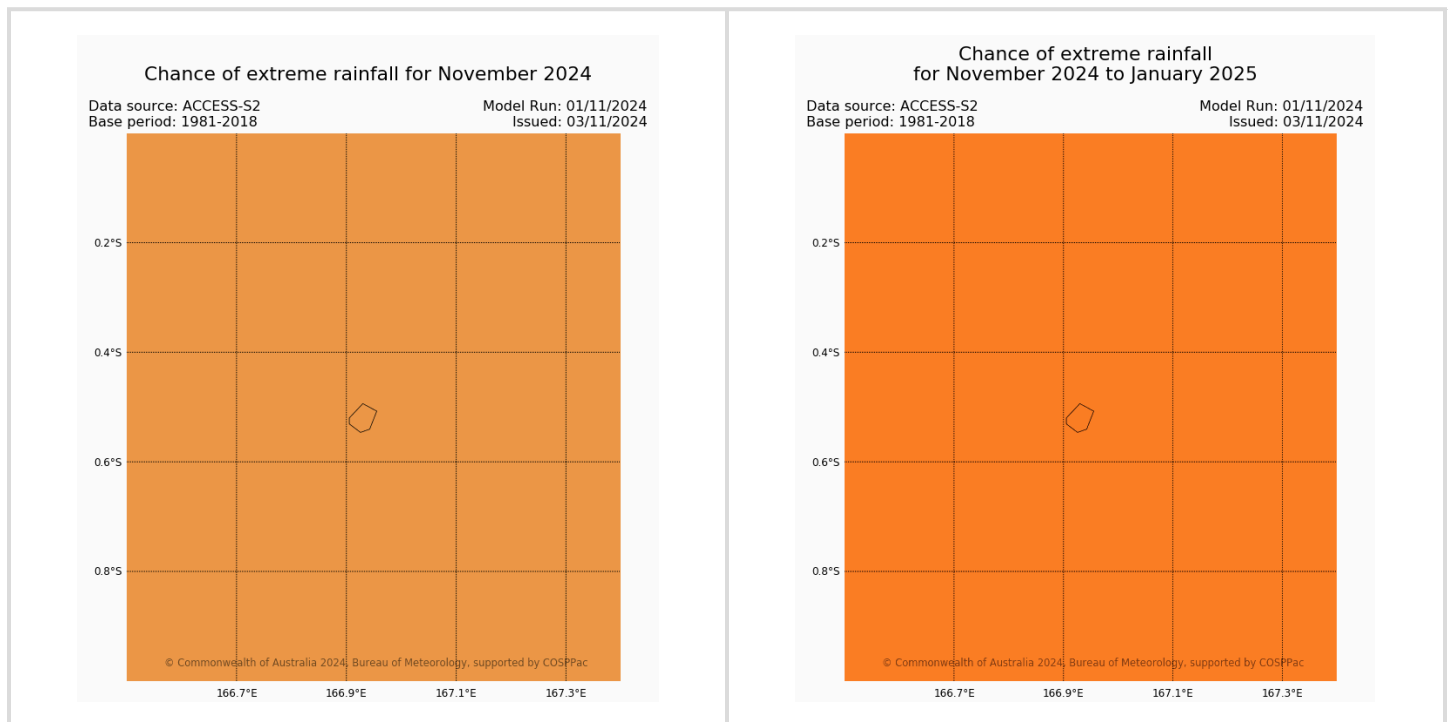
Data source: MSWEP  
Method: Percentile  
© Commonwealth of Australia 2023, Australian Bureau of Meteorology, supported by COSPPac  
Model Run: 01/04/2023  
Base period: 1980-2021  
Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at <http://www.marineregions.org/>.

During the past **1, 3, 6, and 12 month time-scale**, Nauru experienced **no extreme** weather conditions which is **Neutral conditions**.

However, on the past **1 and 3 month time-scale** maps shows that **dry conditions** are slowly developing near Nauru's area.

The maps above shows the past weather conditions from this month.

## OUTLOOK SUMMARY



For this month of **November**, the probability of **very dry** conditions are **high**, the forecast suggest less rainfall than usual.

Then on the next **3 month outlook** from **November to January 2025**, climate forecast models indicates **chances of very dry** conditions in Nauru are **increasing rapidly**.

The maps above shows chance of extreme rainfall for this month and the next 3 month outlook.

**This in combination with the past status conditions suggests that the chances of La-Nina for the Republic is increasing. ENSO status still on neutral phase. However, La-Nina WATCH still in force for the island.**

## IMPACTS TABLE

After the specified period of below or above average rainfall, the following primary agricultural and hydrological variables and secondary socio-economic and health variables may to be impacted. Note the periods are estimates only. Allow for uncertainty associated with island size, topography, geology and soil type. Contact the relevant sector offices for further information on impacts.

VERY DRY TO SERIOUSLY DRY CONDITIONS ( La Nina )

<b>SECTOR</b>	1 - month period most relevant for	3 - month period most relevant for	6 - month period most relevant for	12 - month period most relevant for
<b>WATER</b>	Small water tanks ( 5000ml), small creeks and streams ( if present )  Increased water demands	Small wells, Small streams ( if present )  Desalination plant unable to meet water demand	Boreholes, deeper wells, large water tanks.	Large water sources ( e.g., rivers, artisan wells if present )  Groundwater depletion
<b>AGRICULTURE AND FOOD SECURITY</b>	Shallow rooted crops (e.g., chillies, cherry tomatoes and eggplants )	Deeper rooted crops (e.g., bananas and guavas )	Small trees ( including fruit trees e.g., breadfruit, pawpaw and sugarcane )	Large trees ( including fruit trees e.g., coconut and breadfruit ). Lime trees native trees  Soil quality
<b>HEALTH</b>		Diarrhoea outbreak, asthma, skin rash.	Diarrhoea outbreak, asthma, skin rash.	Heat stroke, dehydration and conjunctivitis.
<b>FISHERIES</b>			Reduced tuna catches	
<b>SOCIO-ECONOMIC</b>			School closure	Increase household expenses on food.

**VERY WET CONDITIONS ( El Nino )**

SECTOR	1 - month period most relevant for	3 - month period most relevant for	6 - month period most relevant for	12 - month period most relevant for
<b>AGRICULTURE AND FOOD SECURITY</b>	Reduced mangoes	Increased pig diseases due to poor shelter  Soil quality (if shading nets poorly located )	Soil erosion  Pandanus fruit rotting	
<b>HEALTH</b>	Increased incidences of dengue and gout	Increased incidences of dengue, flu, pneumonia and gout	Increased incidences of dengue, flu, pneumonia and gout	Increased incidences of dengue, flu, pneumonia and gout
<b>FISHERIES</b>	Increased tuna catches	coral bleaching		
<b>SOCIO-ECONOMIC</b>	Frequent road flooding  Roof leaking  Disrupts communication ( increased cloud coverage )  Wet laundry  Mental health ( stuck indoors )	Frequent flooding  Disrupts phosphate mining  Frequent electricity outage  Increases and frequent shipping and flight delays ( affect food supplies )  School closures	Frequent flooding  Disrupts phosphate mining  Frequent electricity outage  Increases and frequent shipping and flight delays ( affect food supplies )  School closures	Frequent flooding  Disrupts phosphate mining  Frequent electricity outage  Increases and frequent shipping and flight delays ( affect food supplies )  School closures

## RAINFALL MONITORING STATUS

The **rainfall status** maps are based on rainfall values from the MSWEP dataset which are then converted to the percentile index. The percentile index calculates the ranking of rainfall observed for a period against corresponding periods in the historical records for a particular timescale. MSWEP is a global precipitation product that combine rain gauges, satellite and ERA-5 reanalysis data and is provided at a 0.1° resolution. **Seriously dry** is defined as **Meteorological drought** assessed by rainfall

data only. It corresponds to rainfall for that period being in the bottom 10% of the historical record. **NO EXTREME** indicates that rainfall is within that middle 60% of historical observations for the respective timescale. In other words, rainfall that is **not extreme**. The 3 - 6 and 12 month timescale are more accurate representations of drought while the 1 - month timescale can be used to provide an indication of recent **dry (or wet)** spell conditions.

## RAINFALL OUTLOOK

The **chance of extreme rainfall** maps are based on the likelihood of **very wet** or **very dry conditions**. This is equivalent to the chance that rainfall for that forecast period will be in the top or bottom 20% of historical observations for that selected period. The darker the shading, the more likely these extreme scenarios are. The white shading refers to a **low chance of extreme** which means the most likely scenario for that outlook period is for rainfall to be near **average** or **slightly below average** or **slightly above average** ( not very wet nor very dry ). The outlooks have been produced using the <http://www.bom.gov.au/climate/ahead/about/model/access.shtml>.

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## CONTACT FOR MORE INFO

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Email us at [nauru.met16@gmail.com](mailto:nauru.met16@gmail.com) for any concerns or suggestions

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