

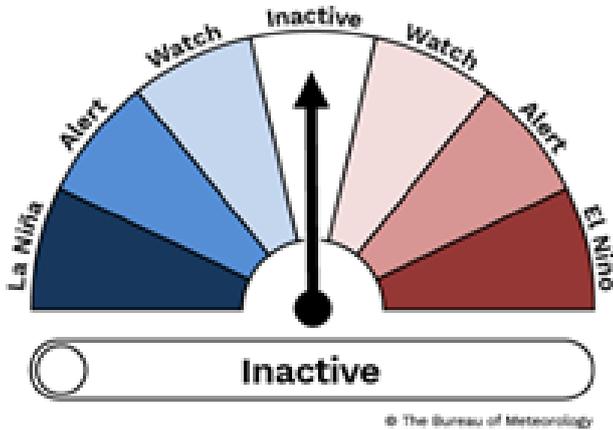


# Solomon Islands Meteorological Service, Early Action Rainfall Watch.



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

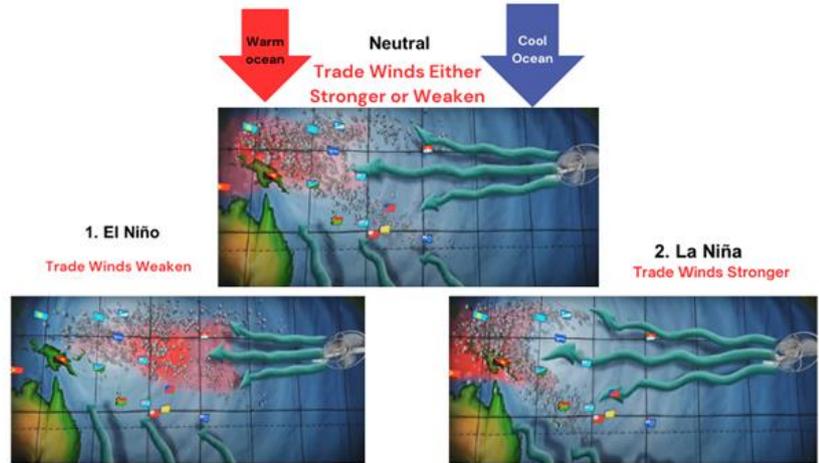
## El Nino Southern Oscillation (ENSO) Update:



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The ENSO currently in "Neutral" range, while indicators recently met the "La Niña" threshold, they have not been sustained to warrant a "La Niña" status in the South Pacific Ocean.

- Where the **ocean is warmer**
  - More rain
  - Higher sea levels
  - Warmer air temperatures
- Where the **ocean is cooler**
  - Less rain, drought can occur
  - Lower sea levels
  - Cooler air temperatures



## RAINFALL STATUS AND OUTLOOK.

### Rainfall status to January 2025.

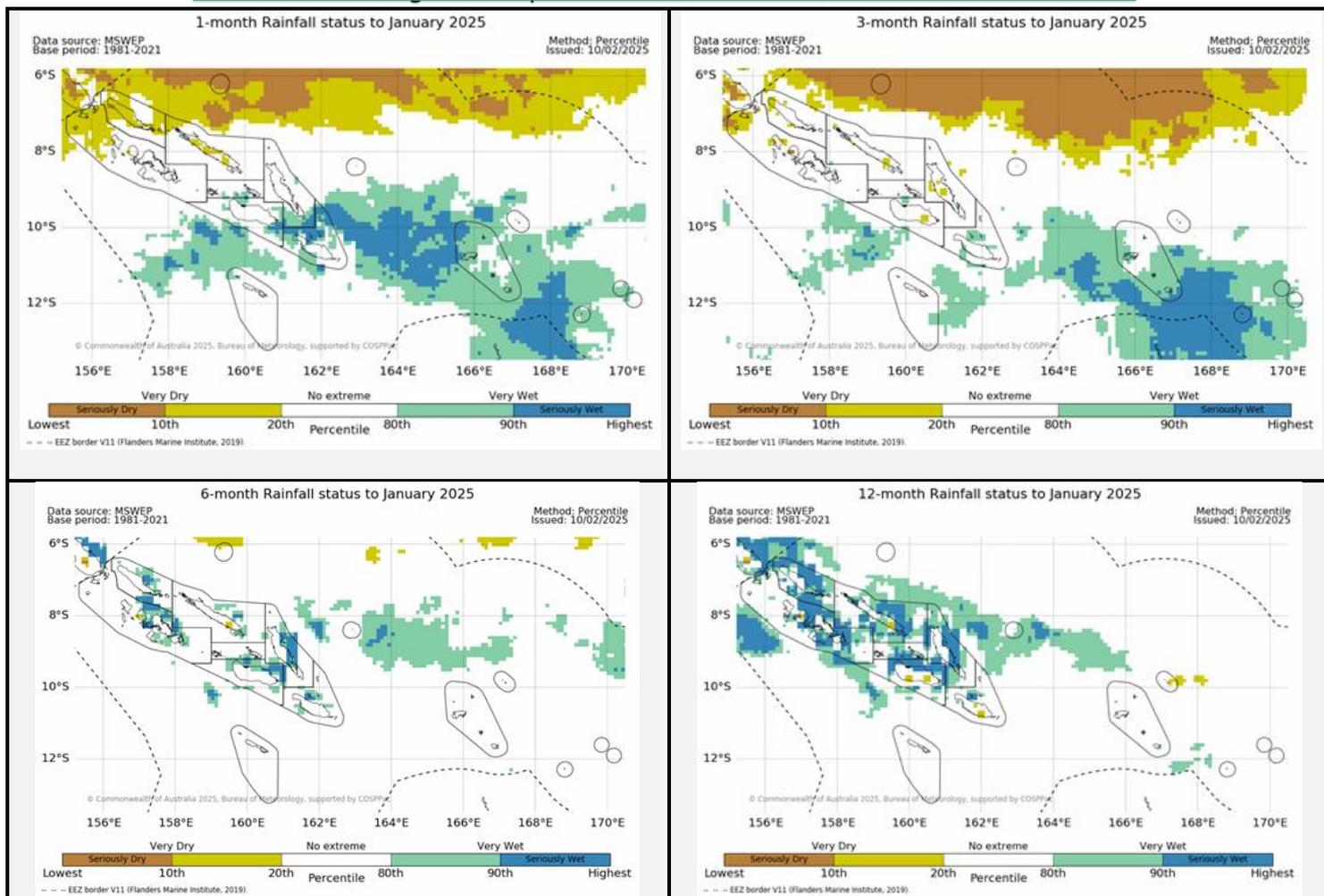
There have been a "Very-wet" condition experienced over Lata and Kirakira for the Past 1-month in the east, while Taro experiencing a "Very-dry" condition in the far western region. For the Past 3-months Lata was reported "Very-wet" and Taro was "Very-dry" rainfall status. Honiara, Henderson and Munda undergo a "Very-wet" and "Seriously-wet" rainfall conditions over the last 6 & 12-months period.

### Rainfall status for the last 1-month, 3-months, 6-months, and 12-months.

Status	1-month January 2025	3-months November 2024 to January 2025	6-months August 2024 to January 2025	12-months February 2024 to January 2025
Seriously Wet				Munda, Honiara, Henderson
Very Wet	Lata and Kirakira	Lata	Munda, Honiara, Henderson	
No Alert	Tingoa, Henderson, Honiara, Auki, Munda	Tingoa, Kirakira, Auki, Henderson, Honiara, Munda	Lata, Tingoa, Kirakira, Auki and Taro	Lata, Tingoa, Kirakira, Auki and Taro
Very Dry	Taro	Taro		
Seriously Dry				



## Rainfall monitoring for the past 1-month, 3-months, 6-months and 12-months



### Impacts:

Different past rainfall time scales impact on sectors. The impacts are estimate only. Allow for uncertainty associated with island size, topography, geology and soil type. Contact the relevant sector offices for further information on impacts.

Sectors	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 watertanks (e.g. 44-gallon drums, 5000L watertank), small streams, shallow wells	bore holes, ground water, small wells, small streams and rivers	medium water sources (e.g. boreholes, springs, medium rivers, wells, large watertanks)	large water sources (e.g. large rivers, springs, bore holes, artisan wells). Water contamination
<b>Food Security</b>	shallow rooted agricultural crops (e.g. island cabbage, chinese cabbage, tomato, beans), kumara, cassava. Increases in pests and diseases.	root crops (e.g. yam, taro, pana, cassava, sweet potato, kumala), banana, cabbage, tomato, traditional vegetables, small livestock, pasture. Low water in fish ponds	Shortage of cash crops (e.g. banana, young coconut, root crops, taro, yam, cassava, cocoa, kava, pana, sugarcane, lemon, grapefruit, orange trees, nut trees, pineapple, coffee), livestock (e.g. goats, horse, cattle), honey bees. Low water table impacts fish food	large trees (e.g. oil palm, coconuts, edu, kakake, cocoa, noni, breadfruit, mango). Reduced fish reproduction in fish ponds
<b>Socio-economic,</b>	water-borne diseases, mosquito-borne diseases (e.g	water-borne diseases (e.g. hepatitis, typhoid),	eye disease, water-borne diseases (e.g. dysentery), skin disease (hookworm)	Water pollution (e.g., algae bloom)

environment and health	malaria), respiratory diseases (e.g. cough), Mental stress	mosquito-borne diseases (e.g malaria), respiratory diseases (e.g. cough), skin disease, open defecation, malnutrition, and starvation.  Schools and provincial hospitals closed down. Increase in domestic violence. Inflation, increase in government spending.	Mental health.  Wildlife migration (e.g., birds, snakes, butterflies, etc.), bush fires  Disputes over resources. Interruption to inter-island shipping. Hydro-power generation affected (disruption of essential services) Relocation of villages.	Forced migration. High mortality, increases in crime (theft, looting etc.), increase workload (domestic chores e.g., water collections). Increase in poverty.
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### Rainfall Outlooks:



#### March, 2025:

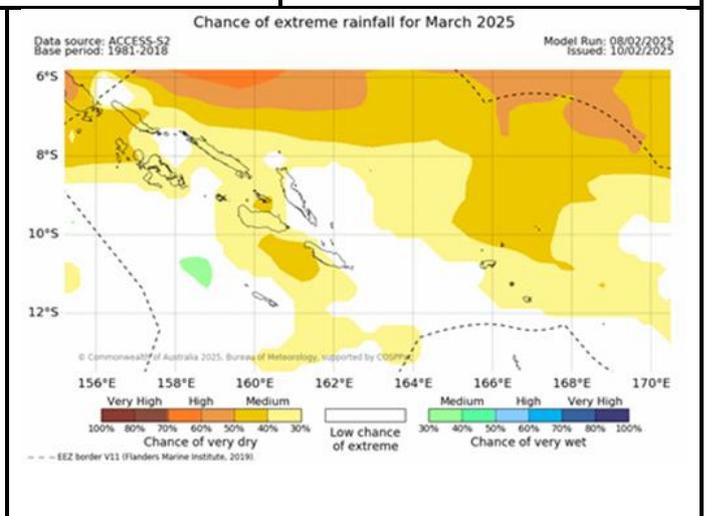
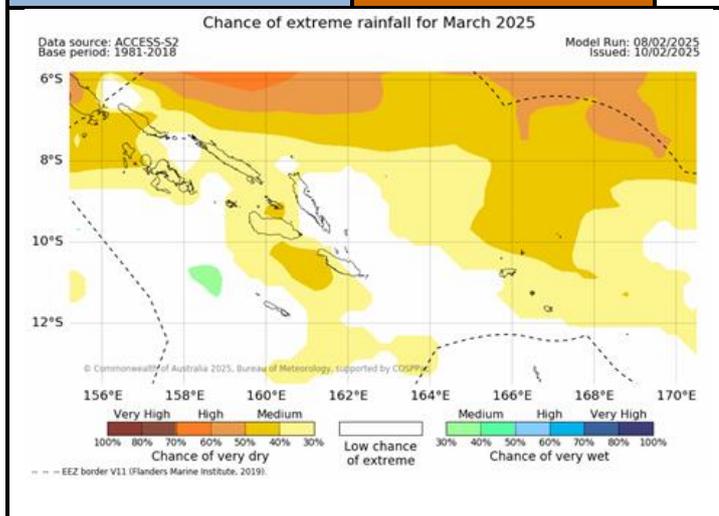
A “Medium-chance of extremely dry” condition is expected from the far west to east regions of the Solomon Islands in the coming month over north of EEZ boundary.

#### March to May 2025:

Tingoa will be expecting a “medium-chance of very-wet” rainfall condition while Taro and Munda in the far western region will be expecting a “Medium chance of very dry” condition over the Northern EEZ Boundary of the Solomon Seas in the coming three months to May, 2025.

### Rainfall Outlooks for March, March to May 2025

Status		1-month Outlook February 2025	3-months Outlook February to April 2025
Chance of Very Wet	Very High		
	High		
	Medium		Tingoa
Low chance of extreme		Tingoa and Kirakira	Honiara, Henderson, Auki, Kirakira and Lata
Chance of Very Dry	Medium	Taro, Munda, Honiara, Henderson, Auki, Lata	Munda and Taro.
	High		
	Very High		



## Rainfall status

Estimates of moisture/water stress are based on recent rainfall compared with historical observations using the Percentile (Decile) Index. The Percentile Index is used to assess the rainfall status from the MSWEP dataset. MSWEP is a global precipitation product that combines rain gauges, satellite and reanalysis data to a 0.1° resolution. Seriously Dry is defined as drought assessed by rainfall data only. A site is assigned 'No Alert' when rainfall has been near normal or slightly above or below normal for the period(s) in question. The 3-, 6- and 12-month timescales can accurately predict drought.

### **Rainfall Outlook (month and season)**

The chance of extremes outlook maps presents the likelihood of Very Wet or Very Dry conditions. They are displayed by the chance that the outlook will result in rainfall in the top or bottom 20% of historical observations for the selected outlook period. Where there is white shading, it is less likely there will be either Very Wet or Very Dry conditions, rainfall is likely to be close to normal in this case. A very high chance of Very Dry (Very Wet) conditions is associated with the highest likelihood of rainfall being in the lowest (highest) 20% on record. A medium chance of Very Dry (Very Wet) conditions is associated with a lower but reasonable chance of rainfall being in the lowest (highest) 20% on record. The outlooks have been produced using the Australian Bureau of Meteorology ACCESS-S2 model.

### **Glossary**

1. **ENSO** - El Nino Southern Oscillation.
2. **La Nina** – extensive ocean cooling at the Central and Eastern Pacific – associated with wetter than normal conditions.
3. **El Nino** – extensive ocean warming the Central and Eastern Pacific – associated with drier than normal conditions.
4. **Past Rainfall** – rainfall that are observed in the past 1, 3, 6 and 12 months.
5. **Quintile** – base on a chance of extreme rainfall (very dry or very wet) using 5 category predictions.
6. **Very Dry** – rainfall in the lowest 20% of the historical record for that location and time period.
7. **Very Wet** – rainfall in the highest 20% of the historical record for that location and time period.
8. **Seriously Dry** – rainfall in the lowest 10% of the historical record for that location and time period.
9. **Seriously Wet** – rainfall in the highest 10% of the historical record for that location and time period.
10. **Chance of Very Dry** – percent chance of rainfall in the lowest 20% of the historical record for that location and month/season.
11. **Chance of Very Wet** – percent chance of rainfall in the highest 20% of the historical record for that location and month/season.
12. **Medium, High and Very High** – refer to the percent probability level where Very High has the highest confidence and represents the range 70% and above.

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**Contact the Solomon Islands Meteorological Service for further information.**

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