

# Samoa Meteorology Division Early Action Rainfall Watch (EAR Watch)



The EAR Watch provides disaster managers' with a brief summary of recent rainfall patterns, particularly drought and the rainfall outlook for the coming months. Contact the Samoa Meteorology Division for further climate information.

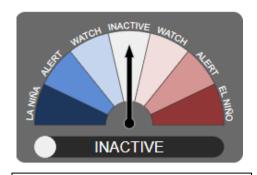
Issued: December 2019

#### **Rainfall Status:**

**Meteorological Drought** exists at Faleolo at the 6-month timescales while a **Drought Watch** is current for Nafanua at the 6 month timescales. **Drought Warning** are current at Apia for 3 and 6 months scale as well as Nafanua at 3 months scale. Afiamalu is experiencing normal conditions.

#### Rainfall Outlook:

Alert 1 Dry is anticipated for all stations with 'no alert' for Apia.



Currently, the ENSO is neutral with 50% chance of El Nino to occur in mid-2019.

Note: Colours do not relate to those below.

## Rainfall Status at 30 November 2019 and Outlook for January to March 2020

| Rainfall Stations* | Rainfall Status |               |               |  |  |
|--------------------|-----------------|---------------|---------------|--|--|
|                    | Past 12 months  | Past 6 months | Past 3 months |  |  |
| Apia               | Normal          | Normal        | Watch         |  |  |
| Afiamalu           | Normal          | Normal        | Watch         |  |  |
| Nafanua            | Warning         | Normal        | Warning       |  |  |
| Faleolo            | Normal          | Normal        | Warning       |  |  |

| Status     | Meteorological | Drought         | Drought          | Status not       | Normal or Wetter | Very             |
|------------|----------------|-----------------|------------------|------------------|------------------|------------------|
| Key        | Drought        | Warning         | Watch            | available        | than normal      | Wet              |
| Percentile | 1              | O <sup>th</sup> | 25 <sup>th</sup> | 40 <sup>th</sup> | !                | 90 <sup>th</sup> |

| Outlook | Alert 3 Drv | Alert 2 Drv | Alert 1 Drv | Outlook not | No    | Alert 1 Wet | Alert 2 Wet | Alert 3 Wet |
|---------|-------------|-------------|-------------|-------------|-------|-------------|-------------|-------------|
| Key     | Aleit 3 Dry | Aleit 2 Diy | Alert I Diy | available   | Alert | Alert I Wet | Alert 2 Wet | Alert 3 Wet |

← Increasing chance of drier 3 months

Increasing chance of wetter 3 months —

#### **Rainfall Status**

The World Meteorological Organization (WMO) recognised Percentile method has been used to assess rainfall status. Meteorological Drought is defined as drought assessed by historical rainfall data only.

#### **Rainfall Outlook**

Seasonal outlooks have been produced using SCOPIC v4.4.16 which is a decision-support tool used to generate outlooks for temperature, rainfall and other climate related factors <a href="http://cosppac.bom.gov.au/products-and-services/seasonal-climate-outlooks-in-pacific-island-countries/">http://cosppac.bom.gov.au/products-and-services/seasonal-climate-outlooks-in-pacific-island-countries/</a>.

The outlook provides an indication of total three-month rainfall, not how intense the rain may be in any one event, nor how it may vary within the three months. A station is assigned 'No Alert' when near normal rainfall is favoured or there are equal chances of below normal, normal and above normal rainfall. Two months before the dry and wet season, until the start of the season, a second outlook is presented for the upcoming dry or wet season.

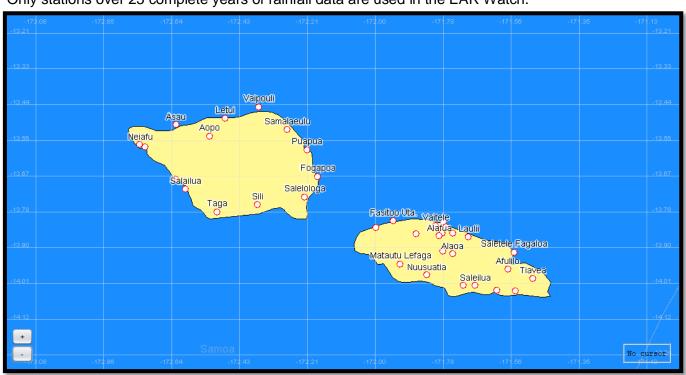
### Time periods and impacts

The following table provides examples of impacts that have been associated with drought at the 3, 6 and 12 month periods. Note the periods are estimates only and impacts overlap. Allow for uncertainty associated with seasonality, island size, topography, geology, soil type or socio-economic circumstances. Contact the National Disaster Management Office and relevant Department for further information on impacts.

| Sector/<br>Department       | 12-month period is most relevant for  | 6-month period is most relevant for                                 | 3-month period is most relevant for   |
|-----------------------------|---|---|---|
| Water                       | major rivers, deep bores/large<br>aquifer system, reservoirs,<br>dams   | small rivers, shallow bores, reservoirs                             | rainwater tanks, streams,<br>shallow bores  |
| Environment/<br>Agriculture | coconuts, breadfruit, mango,<br>banana, fruit trees (nonu,<br>lemon, orange), root crops<br>(yam, taamu, cassava), kava | corn, pineapple, pawpaw,<br>taro, kumala, avocado, cocoa,<br>coffee | traditional vegetables,<br>cabbage, tomatoes, beans,<br>eggplant, watermelon, pasture |
| Fire                        | All Fires   | Structural Fire   | Bush and Rubbish Fire   |
| Health                      | National public health impacts  | Increasing public health impacts                                    | Isolated public health impacts  |
| Tourism                     |   |   |   |

# Samoa rainfall monitoring stations

\* Only stations over 25 complete years of rainfall data are used in the EAR Watch.



Contact the Samoa Meteorology Division for further information.

The Director, Samoa Meteorology Division P.O. Box 3020, Apia, Samoa, Phone: 685 20855 / 20856 Fax: 685 20857

Website: http://www.samet.gov.ws/ Email: ausetalia.titimaea@mnre.gov.ws