

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: January 2019

Rainfall Status:

Meteorological Drought currently exists at Faleolo at the 6-month timescales. A **Drought Watch** is current for Afiamalu at the 3 month timescales and Nafanua at 6 months scale. **Drought Warning** are current at Apia for 3 and 6 months scale as well as Nafanua and Faleolo at 3 months scale.

Rainfall Outlook:

Alert 1 Dry is current for Faleolo and Nafanua. This is likely to enhance dry conditions at both stations. **No Alert** is likely for the next three months for Afiamalu and Faleolo with anticipated dry conditions as moving towards April.



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 31 December 2018 and Outlook for February 2019 to April 2019

| Rainfall Stations* | Rainfall Status | | | Rainfall Outlook | | |
|--------------------|-------------------|------------------|------------------|------------------|------------------|----------------|
| | Past 12 months | Past 6 months | Past 3 months | | Next 3 months | for Nov-Apr |
| Apia | | Warning | Warning | | Alert 1 Dry | Alert 1 Dry |
| Afiamalu | | Normal | Watch | | No Alert | Alert 2 Dry |
| Nafanua | | Watch | Warning | | Alert 1 Dry | Alert 2 Dry |
| Faleolo | | Drought | Warning | | No Alert | Alert 1 Dry |

| Status | Meteorological | Drought | Drought | Status not | Normal or Wetter | Very |
|------------|----------------|------------------------|------------------|------------------|------------------|------------------|
| Key | Drought | Warning | Watch | available | than normal | Wet |
| Percentile | 1 | 0 th | 25 th | 40 th | | 90 th |



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

http://cosppac.bom.gov.au/products-and-services/seasonal-climate-outlooks-in-pacific-island-countries/.

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/ 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 aquifer system, reservoirs, dams | small rivers, shallow bores, reservoirs | rainwater tanks, streams, shallow bores | |
| Environment/ Agriculture | coconuts, breadfruit, mango, banana, fruit trees (nonu, lemon, orange), root crops (yam, taamu, cassava), kava | corn, pineapple, pawpaw, taro, kumala, avocado, cocoa, coffee | traditional vegetables, cabbage, tomatoes, beans, 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.

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