



Vanuatu Meteorology and Geo-Hazards Department

Early Action Rainfall Watch (EAR Watch)



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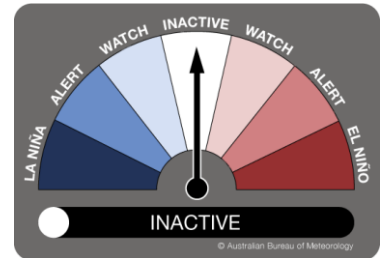
The Early Action Rainfall Watch provides a summary of recent rainfall patterns, particularly the status of the rainfall and the outlook for the coming months. This product will be issued on a monthly basis. For more details and climate information contact the Vanuatu Meteorology and Geo-hazards Department.

Summary

- **El Niño Southern Oscillation (ENSO) Status:** Neutral.

Rainfall Status: Pekoa, Bauerfield, Port Vila and Whitegrass were on *Meteorological Drought* at a 3-month timescale. Pekoa, Bauerfield and Whitegrass maintained this status at the 6-month timescale. Only Pekoa experiences *Meteorological Drought* at the 12-month timescale.

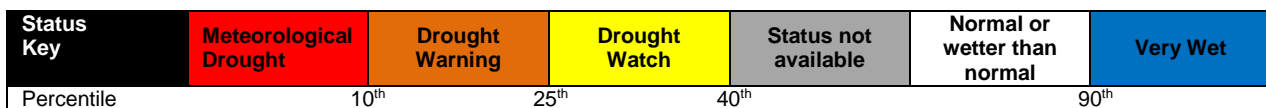
- **Rainfall Outlook:** No *Alert 3 Dry* is issued for the stations within the the next three months (October to November 2019). Outlook for Sola, Lamap and Bauerfield is *Alert 1 Dry*, while *Alert 2 Dry* is in place for the other stations.



Rainfall Status and Outlook

The table below provides information on rainfall status and outlook for Vanuatu. The status refers to rainfall received over the last 3, 6 and 12 months, highlighting very dry or very wet periods relative to normal. The outlook refers to rainfall predicted for the next 3 months as well as the Dry Season. If a station is in drought warning, this indicates an increased likelihood of drought in the coming months. Refer to Vanuatu Climate Update for more details.

		Rainfall Status			Rainfall Outlook		
		Period	12-month period	6-month period	3-month period	Next 3 months	Dry Season
		Months	Sep 2018 – Aug 2019	Mar 2019 – Aug 2019	Jun 2019 – Aug 2019	Oct to Dec 2019	May to Oct 2019
Northern Region	Sola (1971-2019)	Yellow	White	Yellow	Alert 1 Dry	Alert 3 Dry	
	Pekoa (1971-2019)	Red	Red	Red	Alert 2 Dry	Alert 3 Dry	
	Lamap (1961-2019)	Yellow	White	Yellow	Alert 1 Dry	Alert 1 Dry	
Southern Region	Bauerfield (1972-2019)	Yellow	Red	Red	Alert 1 Dry	Alert 3 Dry	
	Port Vila (1953-2019)	Yellow	Orange	Red	Alert 2 Dry	Alert 3 Dry	
	Whitegrass (1972-2019)	Orange	Red	Red	Alert 2 Dry	Alert 3 Dry	
	Aneityum (1952-2019)	White	White	White	Alert 2 Dry	Alert 3 Dry	



← Increasing chance of drier 3 months

Increasing chance of wetter 3 months →

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. For further information and details refer to the ENSO handbook and contact the relevant government departments.

Sector/ Department	12-month period	6-month period	3-month period
Water	large water sources e.g. large rivers, lakes Groundwater supply systems affected, water level drops, hand dug wells dry up and groundwater sources become saline. Water quantity dropped and quality affected	dams, bores, industrial tanks, wet lands, medium rivers Rainwater catchments will be heavily affected including rainwater tanks, surface water affected with reduced water level Water quantity and water quality is further reduced	large domestic water tanks, small rivers. Rainwater catchments will be affected & water level reduced. Water quantity reduced and water quality affected
Agriculture	large trees (e.g. coconuts, coffee, mango, guava)	rice, sugarcane, wheat, root crops affected e.g taro, manioc.	pasture, banana, cassava, yam, taro, english potato, kumala, vanilla, chinese cabbage, lettuce
Livestock		loss of large livestock (pigs, goats and cattle)	loss of small livestock (poultry)
Forestry	Loss of large forest – further increase of forest susceptibility to wildfire, insect pests and disases	Loss large trees (due to increase spread and intensity of insect attacks) Loss of forest canopy affects quality and quantity of water. Increase forest susceptibility to wildfire	Loss of small trees (spread of inserts and diseases attacks)
Fisheries		Increase in migration of deep sea fish and increase loss of coral and reef fish	Loss of aquaculture Coral reef bleaching Migration of deep sea Fish
Environment	loss of habitat, migration of endemics/species, degradation of landscape & quality, loss of biodiversity/vegetation (extinction), introduction of alien/invasive species, secondary impacts e.g resettlements (2015)	streams/lakes & any water bodies affected, introduction of alien/invasive species	grassland, bushfires, plants and vegetables affected
Health Educaton Socio-economic	Health - futher deterioration in human health (e.g. cases of cholera appear, severe unbalance diet leading to death, cough & staunting, mental stress, diahorrea, skin disease case increases. Education - school close Socio-eonomic - less income/less production of local produces, bush fires destroying building, reduced river transport on large rivers.	Health - Increase in migration due to water and food shortages. Deterioration in human health (poor lactation, cases of typhoid, increase in respiratory and eye disease), Education - Affect educations and children attendance, increase in social distruption (e.g. reduced school hours) unbalance diet (relying on rice, tinfish & noodles), mental stress, diahorrea, skin disease case increases, Socio-eonomic - Increase in social distruption (e.g. financial stress, assets being sold, crime, gender based violence). Social obligations being postponed. less income/less production of local produces, bush fires destroying building	Health - Deterioration in human health (malnutrition, poor lactation, increase in sunburn, dehydration and diarrhoea cases), Education - affects schools for children due to water supply, Socio-economic - Unbalance diet/less vegetables, additional labor on children & women, traveling distance to collect water, increase domestic violence, pressure on women & children, increase in psychological/mental stress, skin diseases
Tourism Accommodation: Toilet/Shower Swimming Pool Resturants Flower/garden Water Activities Snokling Kayaking Water Picinc Waterfall Fishing	Airline & transport industry affected, agriculture and fishermen activities affected as well as duty free shops.	Drop in visitors number, reducing the number of employments, reduce in income for business owners. Increase water temperature affecting snokeling, reduce in the water level affect visitors to river activities, driers river level, reduce in income, reduce number of visitions	Poor quality quantity and quality supply of water, inconsistency supply, affect availability of vegetables and others for hotels, flowers and plans drying up.
Infrastructure	Road works thrive on drought as rainfall disturbs & damages roads & infrastructure (bridges & culverts).		
Energy	Infrastructure that depends on water in hydro-power, during drought, river/water level drops, affects generation of electricity		



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Vanuatu rainfall monitoring stations

For further information please contact.

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