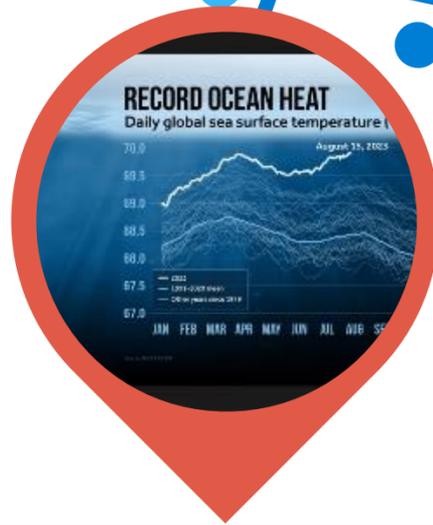
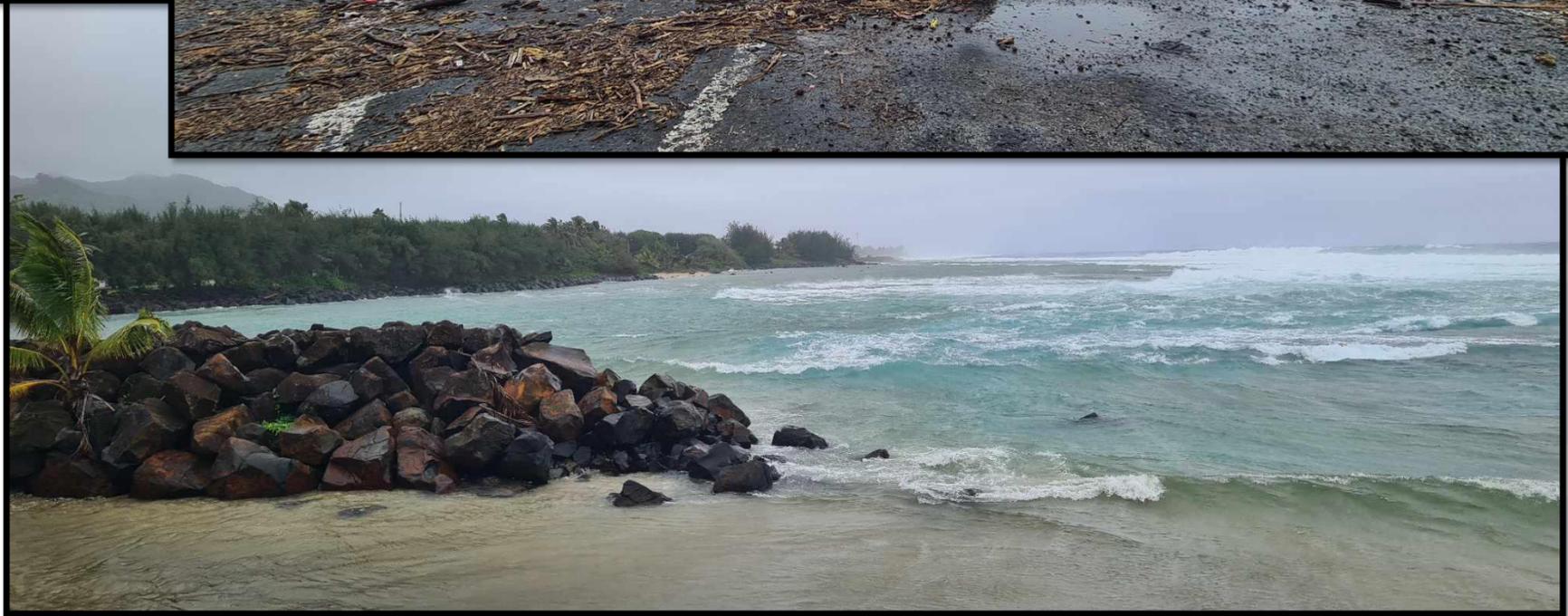


# POLYNESIAN PAST 6 MONTHS CLIMATE IMPACTS



# CLIMATE IMPACTS: COOK ISLANDS





## Climate impacts: Cook Islands

Source: CIMS staff

# Mini-Flash Flooding (Dec 13<sup>th</sup> – 14<sup>th</sup> )

Source: CIMS staff

- Flooding impacted the yards of many properties.
- Low level homes were inundated with water
- Monthly rainfall total: 233mm (highest for the year)
- 108.2mm of rainfall was received during this event (13<sup>th</sup> – 14<sup>th</sup> )



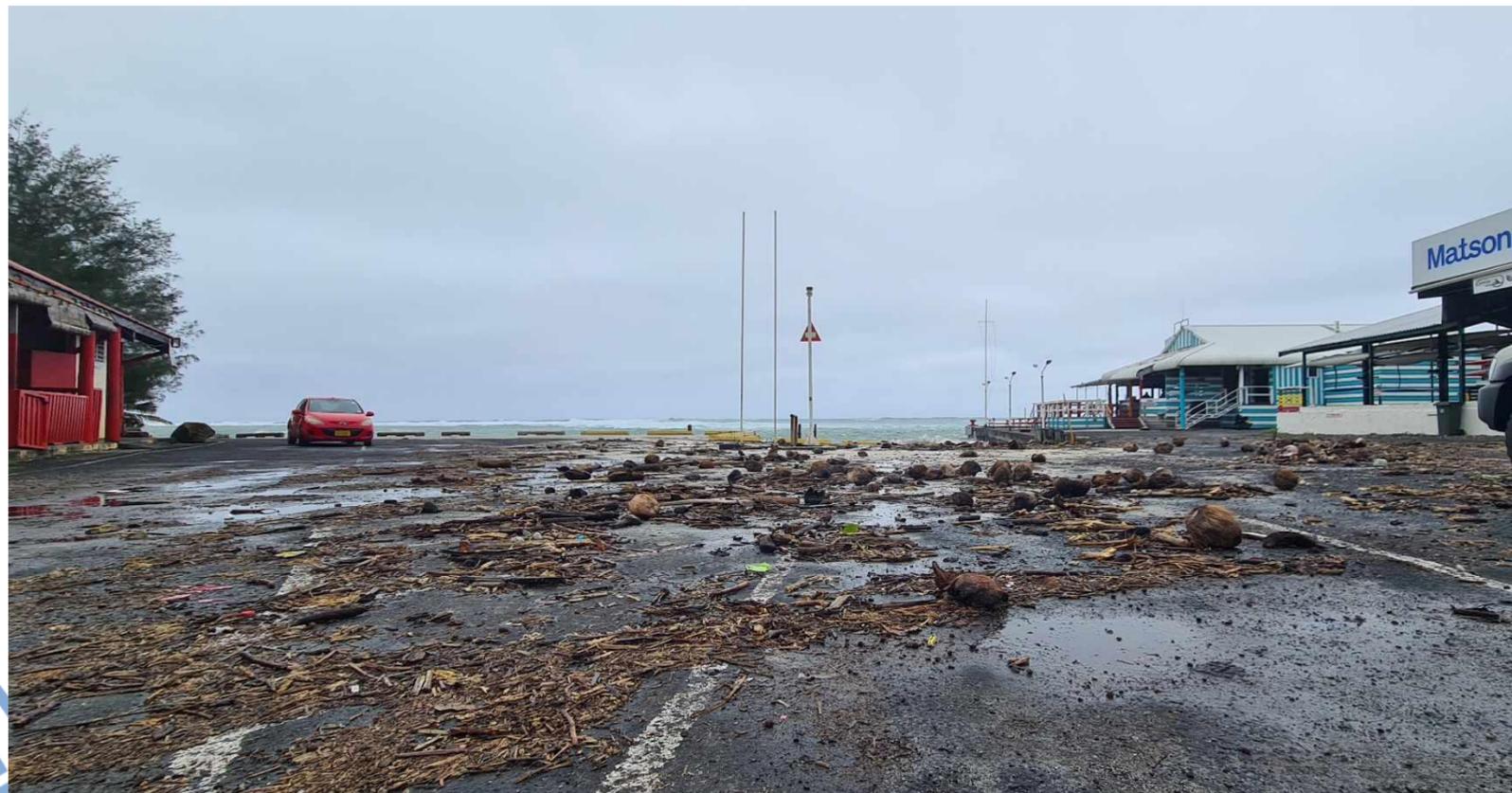
# Mini-Flash Flooding (Dec 13<sup>th</sup> – 14<sup>th</sup> )

Source: CIMS staff, Social Media

- Rugby fields and outdoor netball courts, submerged within a few hours of heavy rainfall



Tupapa Rugby Field



SE side of Rarotonga – Muri Beach

- No significant damages
- The northern to southwestern coasts of Rarotonga experienced choppy sea conditions—particularly during high tide—accompanied by strong coastal winds.
- In contrast, the southern and eastern parts of the island remained unaffected.



NE side of Rarotonga – Avatiu Harbor

**TD04F/TC Pita (07<sup>th</sup> – 11<sup>th</sup> Jan)**

Source: CIMS Staff

# Summary

Add key points which will be included in the PICOF outcomes statement

- No major impacts from recent events

## Small-scale events with minor impacts:

- Mini-flash flooding (Dec 13<sup>th</sup> - 14<sup>th</sup>) where most low level homes experienced inundation. Shallow-rooted vegetation around homes were also damaged.
- TD04F/TC Pita (Jan 07<sup>th</sup> - 11<sup>th</sup>) – no significant damages observed.



# NIUE'S CLIMATE IMPACTS





# FLOODING IN LOW LYING AREAS

Tropical Disturbance 03F affected Niue on Monday 6<sup>th</sup> – Tuesday 7<sup>th</sup> January 2025.

Total Rainfall within two days: 215.0mm & Highest Daily Rainfall Recorded was 163.5mm on Tuesday 7<sup>th</sup> January 20250.

Source: Broadcasting Corporation of Niue

# ROUGH SEAS & FALLEN TREES



High seas and damaging heavy northwest swells.

Location: Alofi Wharf

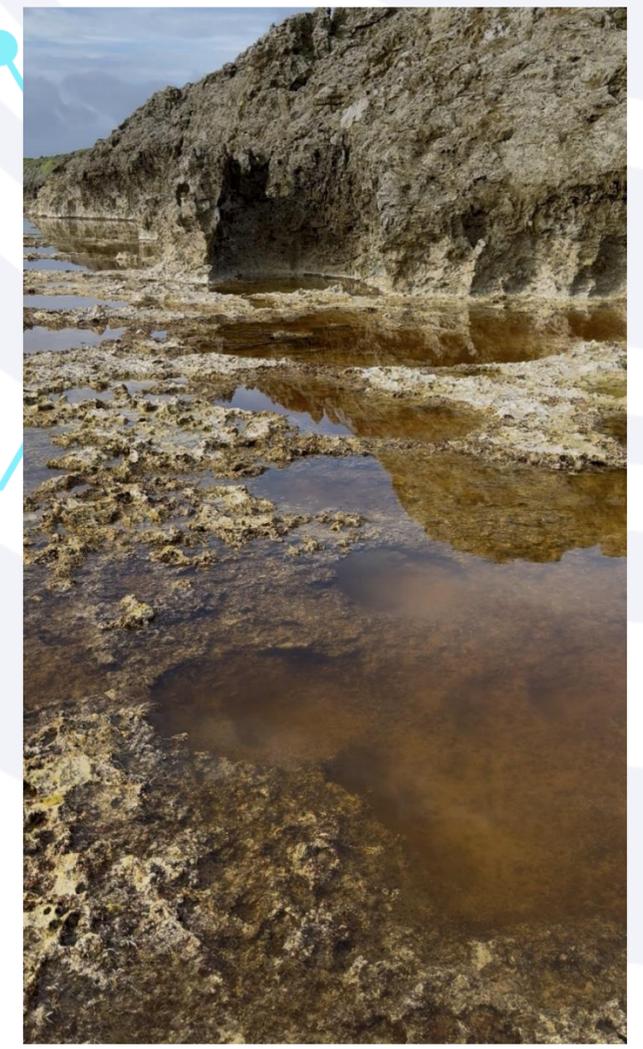
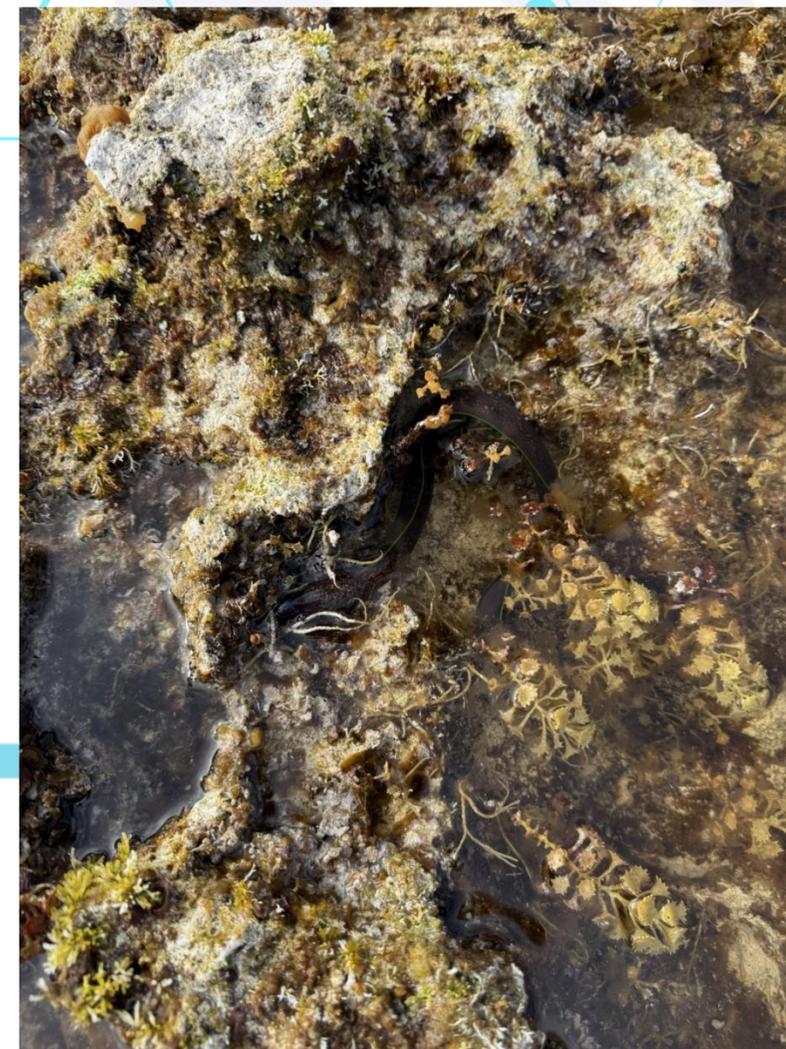
Captured: Raquel Tanaki New



Fallen trees blocking the roads in the Vaippahi area located on the northern side of the Island.

Captured: Clinton Chapman

# IMPACTS ON MARINE ORGANISMS



A trough of low-pressure affected the Island which brought in strong west to northwest winds resulting in calmer seas on the eastern side.

As a result of extreme low tides, shallow areas were exposed and in addition warm temperatures observed a few fish kill (dead fishes) and other marine organisms.

# Summary

- In general, Niue observed visible impacts from 24/25 Tropical Cyclone season.
- Impacts felt by Tropical Disturbances 03F and 04F, with TD04F intensifying into Tropical Cyclone Pita.
- TD03F brought strong gale force winds, very rough to high seas, and moderate to heavy damaging swells from the N-NW.
- With wind speeds recorded on the 06<sup>th</sup> January at Hanan Airport, reaching upto 72km/hr, and gusting to 83km/hr at times.
- Majority of the damage was caused by strong to gale force winds.
- Thunder & lightning was also experienced which resulted in a power outage for the island.



# SAMOA

## IMPACTS FROM NOVEMBER 2024 – APRIL 2025



SAMOA METEOROLOGICAL SERVICES  
M N R E



PACIFIC REGIONAL  
CLIMATE CENTRE NETWORK



SPREP  
Secretariat of the Pacific Regional  
Environment Programme



Pacific Community  
Communauté  
du Pacifique



COSPPac  
Climate Observing System for the Pacific



NIWA  
Taihoro Nukurangi



# November 2024



Samoa Water Authority

November 21, 2024 · 🌐

☁️ Heavy Rainfall Alert! Please remember to be water wise.

#RainyDays #BeWaterWise #StaySafe

**IMPORTANT NOTICE: HEAVY RAINFALL**

**ATTENTION ALL SWA CUSTOMERS:**  
Please be advised that due to heavy rainfall and flooding, the Authority will have to reduce water production to prevent debris and contaminants from entering the filtration systems. Water supply to your homes may be disrupted and/or intermittent if flooding persists.

We strongly advise and recommend that our customers to:

1. Harvest and store rainwater in case of intermittent supply.
2. Boil rainwater and water that is drawn from the tap or extra precaution.

For more information please contact 21267/8421267 for Upolu or 51215 for Savaii.

Thank you,  
SAMOA WATER AUTHORITY

**FAASILASILAGA TAUA: MAMAFA O TIMUGA**

**FAASILASILA ATU I PAAGA UMA O LE PULEGA E FAAPEA:**  
E ono motusia atu le suavai maua i o outou maota ma laoa ona o aafiaga o timuga mamafa i nofoaga o lo'o tapue ai le suavai.

E matua fautuaina le mamalu e:

1. Faapale ma teu malu le suavai timu
2. Faapuna le suavai timu ma le suavai mai le paipa mo taumafataga.

Mo nisi fa'amatalaga, fa'afesootai mai le 21267/8421267 mo Upolu po'o le 51215 mo Savaii.

Faafetai,  
PULEGA O LE SUAVAI

Source: Samoa Water Authority

PUBLIC SEVERE WEATHER INFORMATION NUMBER ONE (D01) FOR SAMOA.  
ISSUED BY THE SAMOA METEOROLOGY DIVISION AT 5:00 PM  
FRIDAY 29th NOVEMBER 2024.

- VALID: HEAVY RAIN ADVISORY
- VALID: FLOOD ADVISORY

☁️ The recent observations from this afternoon show a trough of low-pressure lies within the vicinity of Samoa. The aforementioned situation is expected to bring heavy scattered downpours, thunderstorms, and gusty winds at times affecting the whole of the nation. Therefore, these conditions warrant the issuance of a Heavy Rain Advisory for all of Samoa and the validation of the Flood Advisory for all major rivers and vulnerable areas of the country.

⚠️ Potential Impacts:  
Heavy downpours with poor visibility, foggy and slippery roads over mountain passes and ranges, pooling near roadsides and waterways. Expect gusty periods of rain. ☁️🌧️

🕒 (The next severe weather information will be issued at 5:00 am tomorrow)

**SEVERE WEATHER UPDATE**

**VALID: HEAVY RAIN WARNING**

**VALID: FLOOD ADVISORY**

**VALID: MARINE ADVISORY**

Valid  
**Heavy Rain WARNING**  
**Flood ADVISORY**  
**Marine ADVISORY**

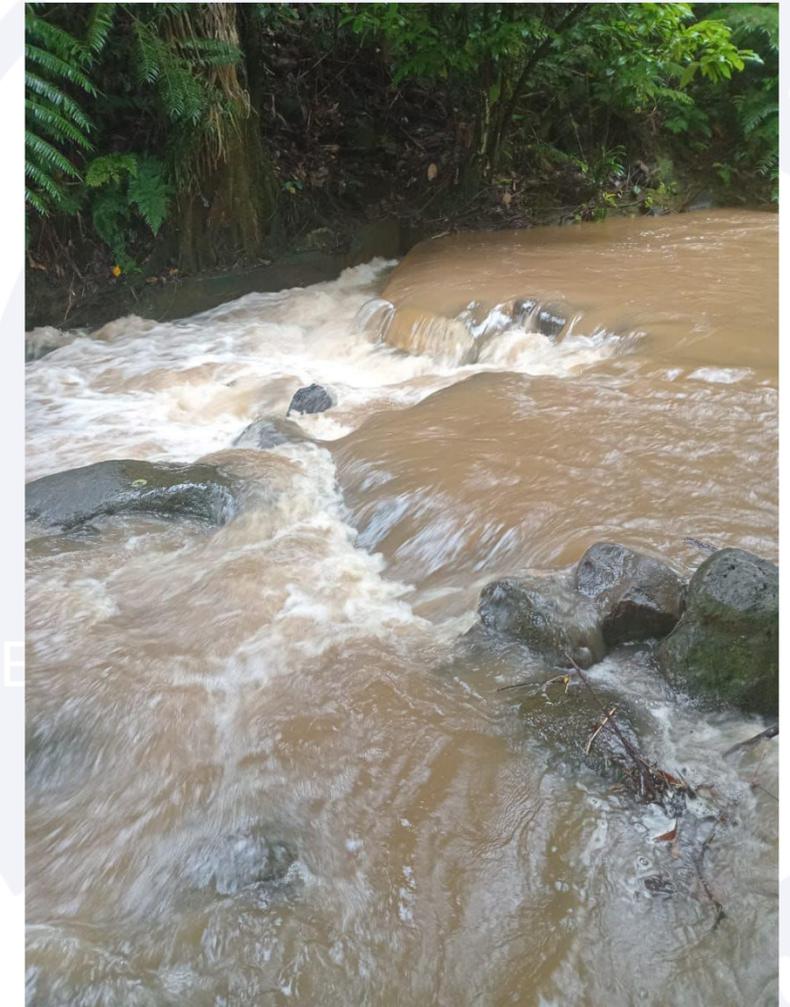
Monday 18th november 2024 @ 5:00pm

For more information  
CONTACT 20855/56 Ext 421 | www.facebook.com/samoa.met | www.samet.gov.ws

ISSUED BY THE SAMOA METEOROLOGY DIVISION/MNRE AT 5:00PM WEDNESDAY 20TH NOVEMBER 2024

Source: Samoa Met Service

# December 2024



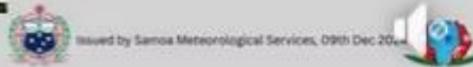
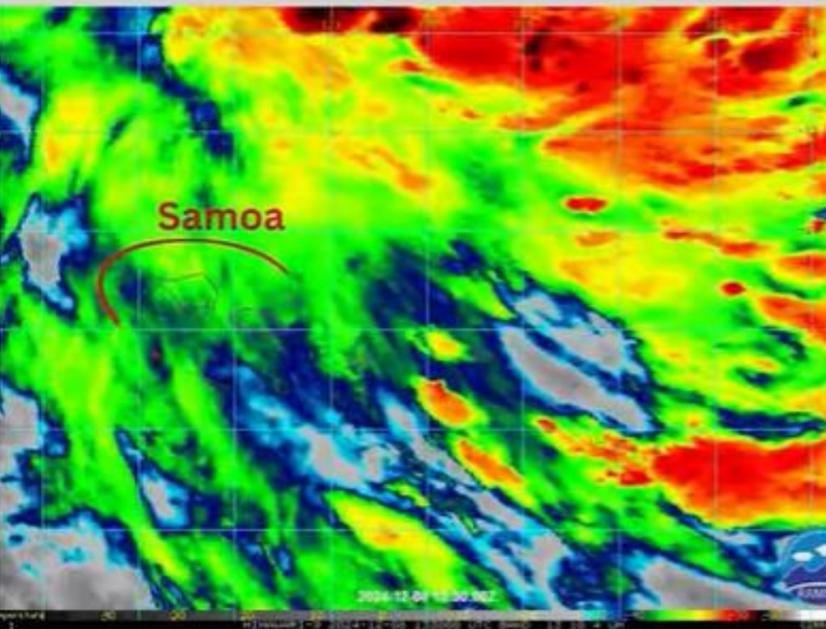
**FA'AMALOSIA:**  
**FAUTUAGA O TIMUGA**  
**MAMAFA.**

**VALID:**  
**HEAVY RAIN ADVISORY.**

**A'afiaga e ono ālia'e mai:**  
E timuga ma e mamafa i nisi o taimi, puaoa ma mase'ese'e auala i nofoaga maualuluga, ma e lolovaia nofoaga i tafatafāala. E fa'ata'uta'u savili i taimi o timuga.

**Potential Impacts:**  
Heavy downpours with poor visibility, foggy and slippery roads over mountain passes and ranges, pooling near roadsides and waterways. Expect gusty winds during rain.

Issued by Samoa Meteorological Services, 09th Dec 2024



**Land Transport Authority - Samoa**

December 19, 2024 · 🌐

TIMUGA MA PUAOA - Malololelei agai Tiavi  
12 aouli Aso Tofi 19 Tesema

Ave ma le faaeteete faamolemole ona ole tau. Manatua faaola moli ole taavale i vaega puaoa ole auala.

Please drive according to road and weather conditions. Rain and fog on Cross Island Road.

Remember to turn on your fog lights.

Here's to a safe Christmas.

Source: Land and Transport Authority  
Samoa Met  
Samoa Water Authority

<https://www.facebook.com/share/v/16NdKjSTwS/>

# December 2024



Source: Land and Transport Authority  
Samoa Met  
Samoa Water Authority

# January 2025



Samoa Water Authority

January 4 · 🌐

FAASILASILAGA TAUA:

Ona o le mamafa tele o timuga ma le malolosi o tafega i vaitafe ua motusia ai le auunaga tau suavai mo pa'aga a le Pulega i Togitogiga ma Tiavea Uta.

E fautuaina ai fo'i paaga uma a le Pulega e fa'apale le suavai timu, teu malu ma faapuna mo taumafataga

IMPORTANT NOTICE:

Due to heavy rainfall and flooding in the rivers, water services is disrupted for customers residing in Togitogiga and Tiavea Uta.

We strongly advise all customers to harvest rainwater, store safely and boil before consumption. **See less**

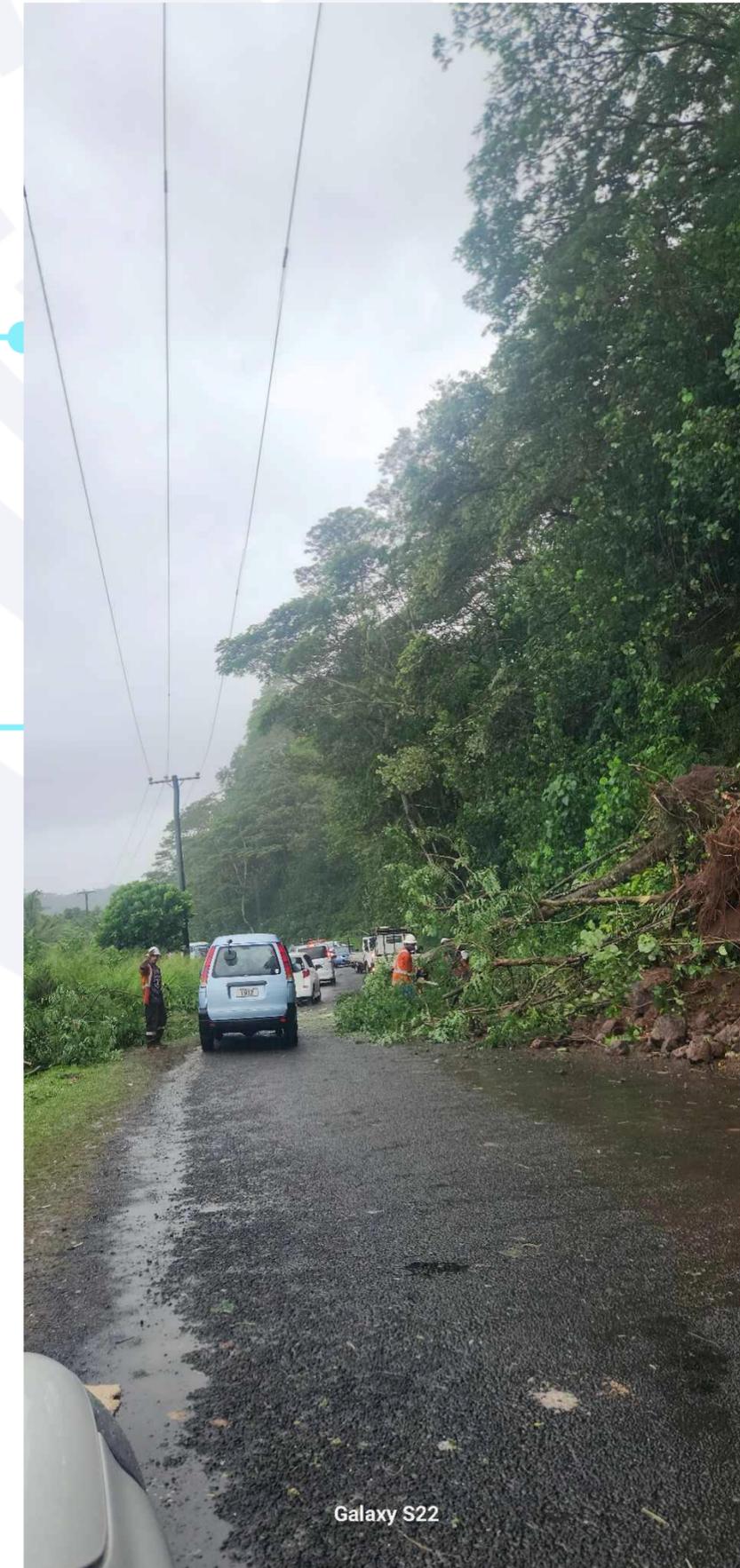
**Harvest Rainwater**

Heavy rain causes flooding and will disrupt water supply some of the time, which is why it is important to harvest and store rain water.

Rainwater will provide an excellent backup source of water for emergencies in any household.

FOR MORE INFORMATION CONTACT  
21267/8421267 OR 51215

The infographic features a background image of a river with turbulent, brown water. It includes the Samoa Water Authority logo, an illustration of a house with a rainwater collection system, and a blue water tank.



## Heavy Rain & Strong Winds

Source: SWA & EPC

Galaxy S22

# February 2025

 Ministry of Education and Culture  
February 20 · 🌐

PUBLIC NOTICE

Temporary Closure of All Government Schools Due to Severe Weather Conditions

The Ministry of Education and Culture advises that all government schools will be closed today due to severe weather conditions, including heavy rainfall, strong winds, and a flood advisory. This decision has been made in the best interest of the safety and well-being of our students.

However, all teachers are required to report to their respective schools to ensure the security of school property and to assist with any necessary preparations in response to the weather conditions.

We urge parents and guardians to keep children indoors, away from roads, rivers, coastal areas and take necessary precautions during this time. Further updates will be provided as the situation develops.

For official updates, please follow the Ministry's announcements through this page.

Faafetai lava  
Aeau Chris Hazelman  
CEO  
Ministry of Education and Culture



**IMPORTANT NOTICE: HEAVY RAINFALL**

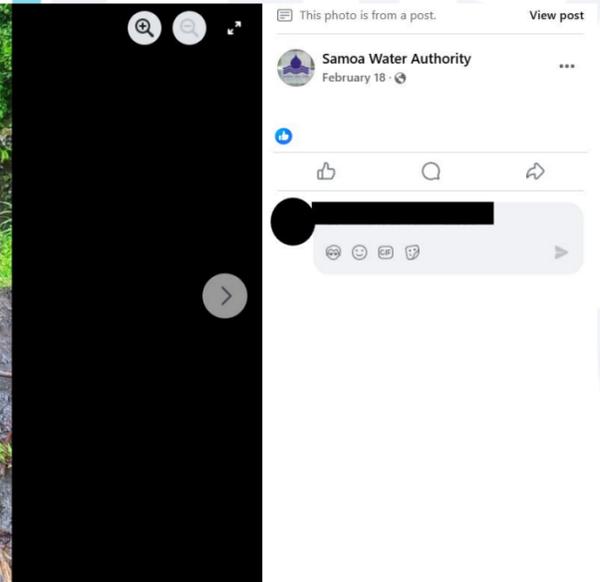
**ATTENTION ALL SWA CUSTOMERS:**  
Please be advised that due to heavy rainfall and flooding, the Authority will have to reduce water production to prevent debris and contaminants from entering the filtration systems. Water supply to your homes may be disrupted and/or intermittent if flooding persists.

We strongly advise and recommend that our customers to:

1. Harvest and store rainwater in case of intermittent supply.
2. Boil rainwater and water that is drawn from the tap or extra precaution.

For more information please contact 212678421267 for Upolu or 51215 for Savaii.

Thank you,  
SAMOA WATER AUTHORITY



Heavy downpours with poor visibility. Foggy and slippery roads over mountain passes and ranges. Pooling near roadsides and waterways. Expect gusty periods during rain.

Severe Weather Update  
**HEAVY RAIN ADVISORY**

**VALID**

**MARINE ADVISORY**  
WWW.SAMET.GOV.WS

Strong currents and rough seas.



ISSUED: SUNDAY 16TH FEBRUARY 2025 | 05:00AM

# February 2025



March 2025



## Samoa Water Authority's Post

Samoa Water Authority  
February 20 · 🌐

FAASILASILAGA TAUA:

Ona o le mamafa tele o timuga ma le malolosi o tafega i vaitafe ua aafia ai nofoaga olo'o tapue ai le suavai. Ma e ono motusia ai le auaunaga tau suavai mo pa'aga a le Pulega.

E fautuaina ai fo'i paaga uma a le Pulega e fa'apale le suavai timu, teu malu ma faapuna mo taumafataga.

IMPORTANT NOTICE:

Due to heavy rainfall and flooding in the rivers, catchment areas have been affected therefore water services may be disrupted for SWA customers.

We strongly advise all customers to harvest rainwater, store safely and boil before consumption.



## Heavy Rain & Strong Winds

Source: SWA & EPC

March 2025



## Heavy Rain & Strong Winds

Source: SWA & EPC

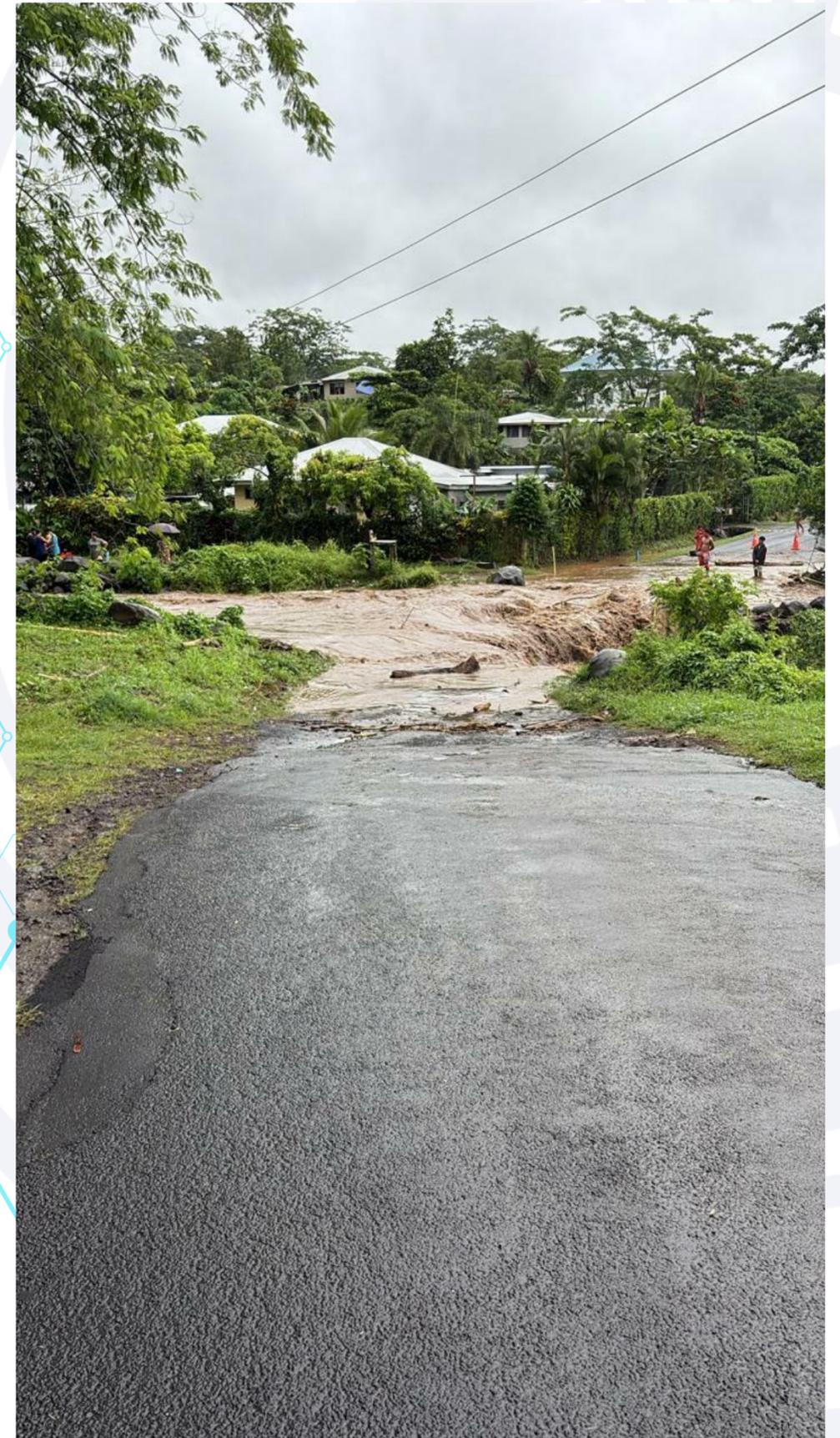
# April 2025



5.30pm



Moamoafou Crossing  
11am



Source: LTA

# April 2025



## Electric Power Corporation FAAMATALAGA FAALAU'ITELE

*"The power of a nation"*

### 🔔 IMPORTANT NOTICE: 🔔

#### WEEKLY POWER RATIONING PROGRAM : CANCELLED

EPC wishes to inform the public that our weekly power rationing program has now been officially cancelled. With all five temporary generators now fully operational at Fuluasou, and with continued support from Fiaga, Tanugamanono, hydro plants (Lalomauga, Ta'elefaga, Tafitoala, Alaoa, Samasoni, Fale o le Fee), and solar energy sources, we now have enough generation capacity to supply power across the entire island.

We give thanks to God for His provision — the sunshine for solar energy, steady rainfall for hydropower, and safe arrival of equipment that made this restoration possible.

**Affected feeders** — including Palisi, Industrial, Beach Road, Lefaga, South Coast, Alaoa, East Coast, and West Coast — **will no longer be rationed.**

Thank you, Samoa, for your patience, prayers, and support as our teams worked to restore and stabilize power.

We continue to monitor the system closely and will keep you informed should any unforeseen maintenance or works be required.

Wishing you a blessed week and a meaningful Resurrection Sunday celebration, filled with renewed faith, joy, and the company of loved ones and friends.

**ELECTRIC POWER CORPORATION (EPC)**

Electric Power Corporation  
Level 5 TATTE Building  
Sogi  
Samoa  
65 400  
[www.epc.ws](http://www.epc.ws)

PO BOX 2011  
Apia  
Samoa

Source: LTA

# Summary

- No Tropical Cyclones
- Average to Above average rainfall for Samoa
- Infrastructure Damage was evident (Power lines, Roads, etc)
- Need more Observations from other sectors (Sea Level, Fish yield during severe weather, agriculture, tourism, etc)
- Definition of Rainfall Status in accordance to impacts



# HEAVY RAINFALL & FLOODING IMPACTS DURING OCTOBER 2024 TONGA



**Rainfall totals (mm) for the last six months,  
October 2024 to March 2025**

	Oct	Nov	Dec	Jan	Feb	Mar
<u>Niuafo'ou</u>	n/a	n/a	n/a	n/a	n/a	n/a
<u>Niuaatoputapu</u>	128.5	156.0	141.1	623.9	374.4	305.0
<u>Vava'u</u>	60.9	155.6	272.2	249.6	161.0	315.2
<u>Ha'apai</u>	87.3	84.7	135.0	178.8	343.3	326.8
<u>Fua'amotu</u>	383.7	145.0	162.0	236.7	261.5	516.7
<u>Nuku'alofa</u>	387.0	126.0	107.5	121.0	470.0	400.5
<u>'Eua</u>	587.6	147.7	131.5	284.0	413.2	398.8
<b>Below normal</b>	<b>Normal (usual)</b>		<b>Above normal</b>			

**Rainfall for the last six months**

Source: TMS

# Impacted flash flood communities in Tongatapu

Source: NDRMO, and user of weather services from Fasi & Fanga community.

- Heavy rain caused flooding of low lying areas in Tongatapu, including areas of Fasi, Fanga, Maufanga in these photos.
- Damage to roads
- Damage to houses and schools as the classrooms also flooded and residential as shown in the photos.



Flooding of residential in Fasi, Tongatapu due to heavy rain.



Flooding of residential and roads in Tongatapu due to heavy rain.



Flooding of schools in Tongatapu due to heavy rain.

# Damage to infrastructure



**'Eua / Road network & bridge along coastal communities in 'Eua**

Source: NDRMO (19/10/2024)



# Summary

- Heavy cause flash flooding which impacted low lying communities.
- Infrastructure & Communications network is heavily affected due the heavy rain and flooding.



PACIFIC REGIONAL  
CLIMATE CENTRE NETWORK



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Secretariat of the Pacific Regional  
Environment Programme



Pacific Community  
Communauté  
du Pacifique



COSPPac  
Climate Change and Disaster Preparedness  
Programme



NIWA  
Taihoro Nukurangi



# THE WET SEASON IMPACTS IN TUVALU OVER PAST SIX MONTHS



# Past Six Months for November 2024 to March 2025

Station (include data period)	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25
	Total (mm)				
Nanumea (941-2025)	49.6	121.8	279.4	88.6	135.3
Nui (1946-2025)	210.8	206.4	225.2	129.4	121.8
Funafuti (1933-2025)	216.7	515.6	538.3	313.4	203.1
Niulakita (1953-2024)	389.2	244.7	319.9	692.7	206.3

Monthly	Nanumea (91631)	Nui (91636)	Funafuti (91643)	Niulakita (91648)
Novemeber (2024)	Below normal	Normal	Normal	Above normal
December (2024)	Below normal	Below normal	Above normal	Normal
January (2025)	Normal	Below normal	Above normal	Normal
February (2025)	Below normal	Below normal	Below normal	Above normal
March (2025)	Below normal	Below normal	Normal	Above normal

- For November 2024 to March 2025, Nanumea and Nui stations was experienced below normal rainfall, leading on major impacts low water level in per households. Nanumea recorded the least rainfall for November, 2024 and February 2025 at **49.6mm** and **88.6mm**.
- Funafuti during January was observed has an extremely highest rainfall has recorded above normal approximately **538.3mm**.
- The Tuvalu Meteorological Service, in collaboration with the Public Works Department, reported a shortage of water in the Northern group based on observations from outstations, and there is no evidence to suggest to drought conditions, since rainfall monitoring has not met the criteria for either La Nina or a drought conditions.

# Impacts of King tide, 28 February, 2025

Source: Tuvalu Meteorological Service



➤ The images displayed on the left were taken at the Tuvalu Meteorological Service during the king tide. The site area was inundated, which impacted the placed equipment and as a result for some of it were not functioning properly.



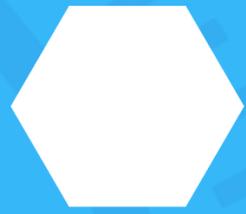
- Most of the low-lying areas close to the coastline were flooded during the king tide event, and homes close to the shoreline have been vulnerable as a result of the sea level rising toward the land.
- In some areas, like the ones beside the airstrip, water is continuously rising through the ground, highlighting the ongoing struggle with sea-level rise. If the rough weather had persisted, it could have worsened the situation, causing further damage to our vulnerable coastline just like it happening last year in February.

# Strong Wind Warning impacted

Source: TuCAN Project, January 16<sup>th</sup> 2025 in Funafuti



Tuvalu experienced high tides alongside a strong wind warning. The rough weather brought heavy rainfall, strong winds, and turbulent seas, which intensified the impact of the high tide and strong wind. Which leading on, rocks and seawater were right up onto the land, creating hazardous conditions.



# Summary

This is a crucial reminder of the issues we encounter every day as a result of climate change. The threats to our homes, livelihoods, and safety are increasing as a result of the worsening effects of rising sea levels.

To secure our future, it's essential to act and spread awareness of the realities our island nation faces. Over the past six months northern and central groups have experience low rainfall as result impacting on root crops and also households water storage were shortage . In the southern group of Tuvalu most experienced high rainfall leading to flooding some low-lying areas.

However, during the wet season, Tuvalu was experienced below to above average rainfall during the neutral phase. But there wasn't extremely events affected the country in the past six months.



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Taihoro Nukurangi



# SECTORS THAT HAVE BEEN IMPACTED

- Infrastructure
- Communications
- Agriculture
- Private Sector
- Health
- Education
- Power and Energy
- Water
- Land and Transport
- Public Works Department



# FAKAAUE LAHI MAHAKI!

