

Pacific Islands - Ocean and Climate Outlook Forum (OCOF) No. 171

Country: Samoa

Part 1: Recent climate

TABLE 1: Monthly Rainfall

Station (include data period)	Sep-2021	Oct-2021	Nov-2021				Rank
			Total (mm)	33%tile	67%tile	Median	
	Total (mm)	Total (mm)	Rainfall (mm)				
Apia (1890-2021)	66.6	110.4	144.4	183.5	297.2	243.8	25/132
Afiamalu (1903-2021)	54.9	227.6	469.3	329.0	463.5	389.3	48/68
Nafanua (1965-2021)	27.3	114.2	237.9	206.4	318.9	272.4	22/51
Faleolo (1956-2021)	6.1	91.2	180.6	155.6	217.4	175.7	34/60

TABLE 2: Three-month Total Rainfall for September to November 2021

Station	Three-month Total		33%tile	67%tile	Median	Rank
	Rainfall (mm)					
Apia (1890-2021)	321.4	Below normal	392.7	527.1	455.0	12/132
Afiamalu (1903-2021)	751.8	Normal	649.4	855.6	743.6	21/68
Nafanua (1965-2021)	379.4	Below normal	461.3	653.0	528.6	3/49
Faleolo (1956-2021)	277.9	Normal	274.6	392.7	331.0	8/58

NB: The X LEPS % score has been categorised as follows:

Very Low: $X < 0.0$

Low: $0 \leq X < 5$

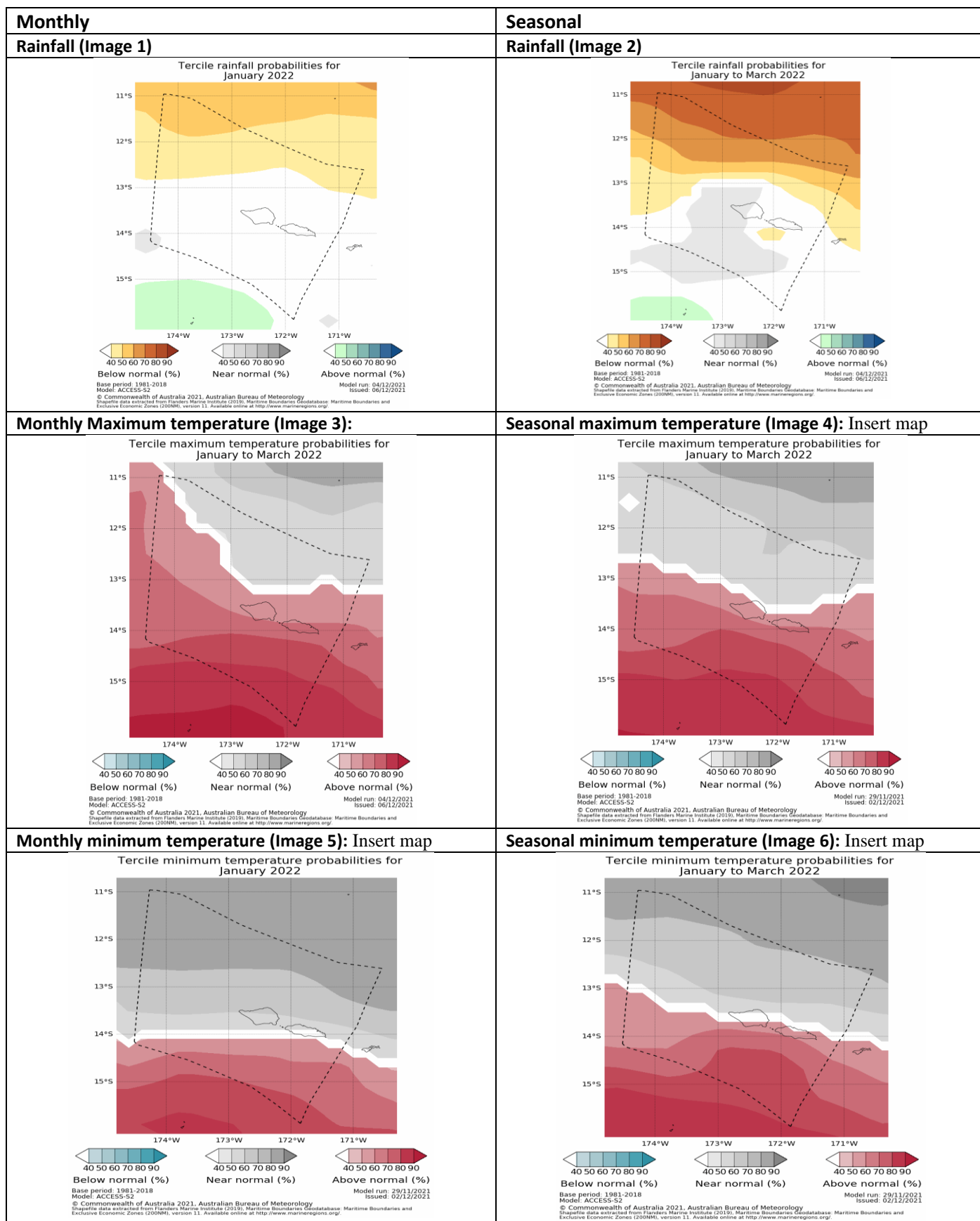
Moderate $5 \leq X < 10$

Good: $10 \leq X < 15$

High: $15 \leq X < 25$

Very High: $25 \leq X < 35$ Exceptional: $X \geq 35$

Part 1i. Monthly and Seasonal Outlooks for January and January to March 2022



NB: The X LEPS % score has been categorised as follows:

Very Low: $X < 0.0$

Low: $0 \leq X < 5$

Moderate: $5 \leq X < 10$

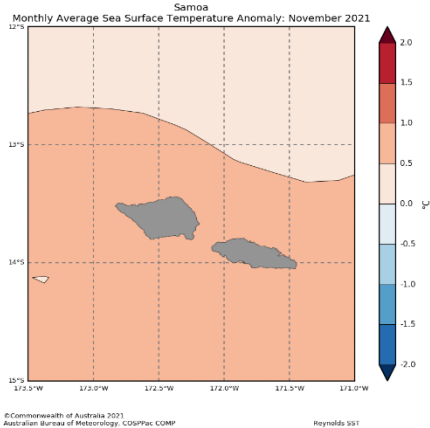
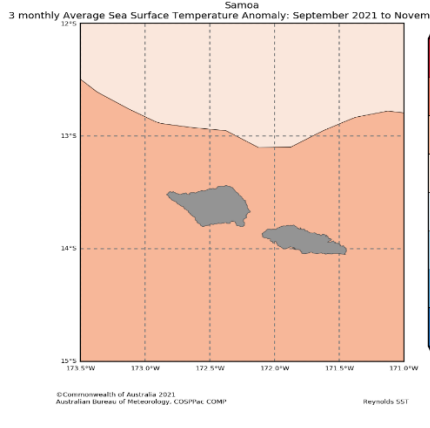
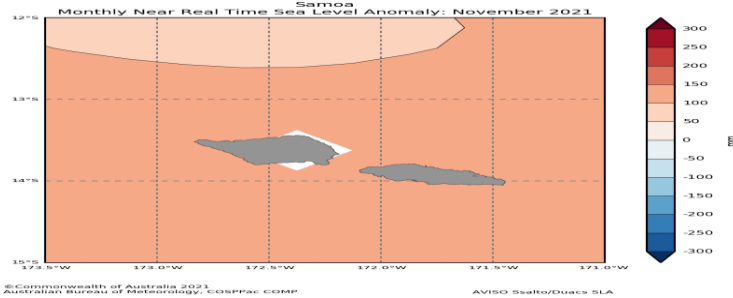
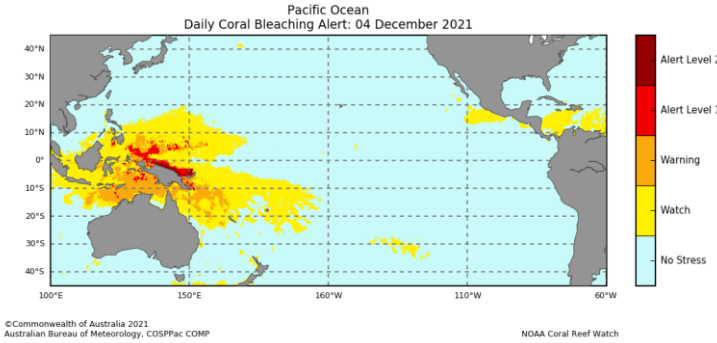
Good: $10 \leq X < 15$

High: $15 \leq X < 25$

Very High: $25 \leq X < 35$ Exceptional: $X \geq 35$

Part 2: Recent Ocean summary statement

Monthly: November 2021

Monthly: November	Last three months: September to November 2021:
<p>Sea Surface Temperature (Image 1):</p>  <p>Samoa Monthly Average Sea Surface Temperature Anomaly: November 2021</p> <p>©Commonwealth of Australia 2021 Australian Bureau of Meteorology, COSPPac COMP Reynolds SST</p>	<p>Sea Surface Temperature (Image 4):</p>  <p>Samoa 3 monthly Average Sea Surface Temperature Anomaly: September 2021 to November 2021</p> <p>©Commonwealth of Australia 2021 Australian Bureau of Meteorology, COSPPac COMP Reynolds SST</p>
<p>Sea level (Image 2):</p>	
 <p>Samoa Monthly Near Real Time Sea Level Anomaly: November 2021</p> <p>©Commonwealth of Australia 2021 Australian Bureau of Meteorology, COSPPac COMP AVISO SeaWiFS/QuikSCAT SLA</p>	
<p>Daily coral bleaching alert (Image 3):</p>	
 <p>Pacific Ocean Daily Coral Bleaching Alert: 04 December 2021</p> <p>©Commonwealth of Australia 2021 Australian Bureau of Meteorology, COSPPac COMP NOAA Coral Reef Watch</p>	

NB: The X LEPS % score has been categorised as follows:

Very Low: $X < 0.0$

Low: $0 \leq X < 5$

Moderate $5 \leq X < 10$

Good: $10 \leq X < 15$

High: $15 \leq X < 25$

Very High: $25 \leq X < 35$ Exceptional: $X \geq 35$

Part 2i. Monthly and Seasonal Outlooks for January and January to March 2022

Monthly: January	Seasonal: January to March
Monthly sea surface temperature (Image 5):	Seasonal sea surface temperature (Image 6):
<p>Difference from average sea surface temperature forecast for January 2022</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2021, Australian Bureau of Meteorology Shapefile data extracted from Esri's Marine Institute (2013). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at http://www.marinerregions.org/</p> <p>Model run: 04/12/2021 Issued: 06/12/2021</p>	<p>Difference from average sea surface temperature forecast for January to March 2022</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2021, Australian Bureau of Meteorology Shapefile data extracted from Esri's Marine Institute (2013). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at http://www.marinerregions.org/</p> <p>Model run: 04/12/2021 Issued: 06/12/2021</p>
Monthly sea level (Image 7):	Seasonal sea level (Image 8):
<p>Difference from average sea surface height forecast for December 2021</p> <p>© Commonwealth of Australia 2021 Bureau of Meteorology</p> <p>Model: ACCESS-S2 Base Period: 1981-2018</p> <p>Model Run: 27/10/2021 Issued: Map not issued</p>	<p>Difference from average sea surface height forecast for December 2021 to February 2022</p> <p>© Commonwealth of Australia 2021 Bureau of Meteorology</p> <p>Model: ACCESS-S2 Base Period: 1981-2018</p> <p>Model Run: 27/10/2021 Issued: Map not issued</p>
4-week Coral Bleaching (Image 9):	
<p>Pacific Ocean 4 Weeks Coral Bleaching Outlook: 26 December 2021</p> <p>Alert Level 2 Alert Level 1 Warning Watch No Stress</p> <p>© Commonwealth of Australia 2021 Australian Bureau of Meteorology, COSPPac COMP</p> <p>NOAA Coral Reef Watch</p>	

NB: The X LEPS % score has been categorised as follows:

Very Low: $X < 0.0$ Low: $0 \leq X < 5$ Moderate $5 \leq X < 10$ Good: $10 \leq X < 15$ High: $15 \leq X < 25$

Very High: $25 \leq X < 35$ Exceptional: $X \geq 35$

Summary Statement

Monthly and last three months: November 2021/September to November statement (Highly significant changes)

Below normal rainfall was recorded at Apia while *above normal rainfall* was registered at Afiamalu. *Near normal rainfall* was received at Faleolo and Nafanua.

Below normal rainfall was recorded at Apia and Nafanua in the past three months, while Afiamalu and Faleolo received *normal rainfall*. Nafanua and Faleolo recorded its third (3rd) and eight driest September to November rainfall on record respectively.

Part 1i. Monthly and Seasonal Outlooks for January and January to March 2022

Monthly /Seasonal rainfall and temperature Outlook statements (Highly significant changes)

The monthly rainfall outlook offers *little guidance* for the Samoa as the chances of above normal, normal and below normal are similar. The seasonal rainfall outlook shows *near normal* rainfall likely for the eastern side of Savaii and offers *little guidance* for Upolu and the western side of Savai'i.

Above normal maximum temperatures are very likely to occur across Samoa for January 2022. The seasonal outlook shows *above normal* maximum temperatures very likely for Samoa for January to March 2022.

The outlook shows *near normal* minimum temperatures are likely to occur across the island of Savaii and the north eastern side of Upolu and offers *little guidance* for rest of Upolu for January 2022. The seasonal outlook shows *above normal* minimum temperatures likely for Upolu and the southern side of Savaii and *little guidance* for the rest of Savaii for January to March 2022.

Part 2: Recent Ocean summary statement

Monthly and last three months: November/September to November 2021 (Highly significant changes)

Sea Surface temperatures (SSTs) in the Samoa region experienced a slight warming in the last three months.

Sea Level Anomaly (SLA) showed a slight increase of 100mm-150mm in November 2021.

Part 2i. Monthly and Seasonal Outlooks for January and January to March 2022

Ocean Variable statement (Highly significant changes)

Sea Surface temperatures (SST) for Samoa is anticipated to be normal for the rest of the island in January 2022. It is forecasted that Samoa is expected to continue with near normal SST conditions in the upcoming three-month period January to March 2022.

NB: The X LEPS % score has been categorised as follows:

Very Low: $X < 0.0$

Low: $0 \leq X < 5$

Moderate $5 \leq X < 10$

Good: $10 \leq X < 15$

High: $15 \leq X < 25$

Very High: $25 \leq X < 35$ Exceptional: $X \geq 35$

TABLE 3: Stakeholder Engagement- Evaluations of how effective NMS engage with stakeholders

Product	Date: November 2021	Stakeholder	Total Number of Participants	Number of male	Number of female
Climate Outlook & Tropical Cyclone Briefing	2 nd	SPREP	20	10	10
Climate Outlook & Tropical Cyclone Briefing	10 th	UNDP, AUSTRALIA HIGH COMMISSION	20	10	10
Climate Projections Presentation	18 th	Japan International Cooperation Agency, SPREP	30	15	15
Climate Summary (Email, Website)	25 th	RED Cross, Water Authority (SWA), Media, Health, Works & Infrastructure, Land & Transport Authority, Agriculture & Fisheries, Fire Services, Ministry of Women, National University of Samoa, Tourism, Foreign Affairs, Communication and Information Technology, Disaster Managers, Marines	65	27	38
Ocean Outlook	25 th	RED Cross, Water Authority (SWA), Media, Health, Works & Infrastructure, Land & Transport Authority, Agriculture & Fisheries, Fire Services, Ministry of Women, National University of Samoa, Tourism, Foreign Affairs, Communication and Information Technology, Disaster Managers, Marines	65	27	38
Total			200	89	111

NB: The X LEPS % score has been categorised as follows:

Very Low: $X < 0.0$

Low: $0 \leq X < 5$

Moderate $5 \leq X < 10$

Good: $10 \leq X < 15$

High: $15 \leq X < 25$

Very High: $25 \leq X < 35$ Exceptional: $X \geq 35$