

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 161

Country: Tuvalu

TABLE 1: Monthly Rainfall

Station (include data period)	Nov-2020	Dec-2020	Jan-2021				
			Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)	Rainfall (mm)				
Nanumea (1941-2021)	64.4	60.6	2.6	245.9	383.3	328.8	1/81
Nui (1946-2021)	164.1	383.1	146.9	247.2	448.4	353.0	9/76
Funafuti (1933-2021)	143.5	297.2	60.8	309.7	445.8	383.8	1/89
Niulakita (1953-2021)	271.4	437.2	443.1	299.0	438.4	366.3	47/68

TABLE 2: Three-month Rainfall for November 2020 to January 2021

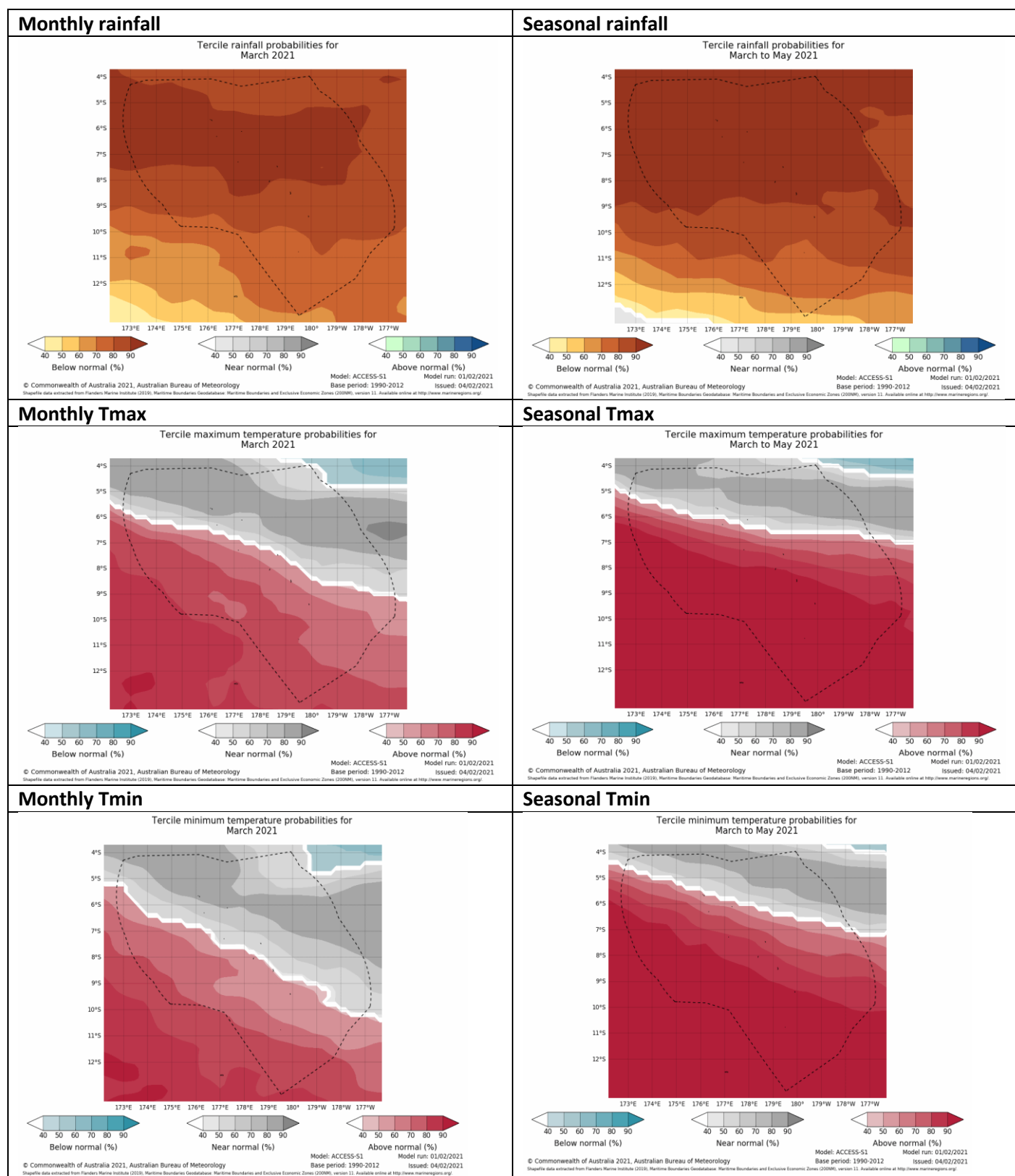
Station	Three-month Total		33%tile	67%tile	Median	Rank	SCOPIC forecast probabilities based on NINO3.4 August-September 2020				Verification: Consistent, Near- consistent, Inconsistent?
	Rainfall (mm)						B-N	N	A-N	LEPS	
Nanumea (1941-2021)	127.6	Below normal	624.3	997.0	882.8	1/79	45	40	15	29	Consistent
Nui (1946-2021)	694.1	Below normal	821.8	1093.2	949.8	18/75	40	27	33	3	Consistent
Funafuti (1933-2021)	501.5	Below normal	938.0	1136.9	1018.6	2/88	39	24	37	1	Consistent
Niulakita (1953-2021)	1151.7	Above normal	836.7	1140.7	1024.4	46/65	24	35	41	12	Consistent

TABLE 3: Seasonal Climate Outlooks using SCOPIC for March to May 2021**Predictor and Period used: NINO3.4 for December 2020 to January 2021**

Station	<u>Below Median (prob)</u>	<u>Median Rainfall (mm)</u>	<u>Above Median (prob)</u>		<u>LEPS (%) [whole numbers]</u>	<u>Hit-rate (%) [whole numbers]</u>
<u>Nanumea (1941-2021)</u>	<u>73</u>	<u>772.2</u>	<u>27</u>		<u>21</u>	<u>69</u>
<u>Nui (1946-2021)</u>	<u>70</u>	<u>698.5</u>	<u>30</u>		<u>17</u>	<u>74</u>
<u>Funafuti (1933-2021)</u>	<u>65</u>	<u>791.2</u>	<u>35</u>		<u>9</u>	<u>57</u>
<u>Niulakita (1953-2021)</u>	<u>52</u>	<u>832.1</u>	<u>48</u>		<u>-1</u>	<u>27</u>

Station	<u>Below Normal (prob)</u>	<u>33%ile Rainfall (mm)</u>	<u>Normal (prob)</u>	<u>67%ile Rainfall (mm)</u>	<u>Above Normal (prob)</u>	<u>LEPS (%) [whole numbers]</u>	<u>Hit-rate (%) [whole numbers]</u>
<u>Nanumea (1941-2021)</u>	<u>53</u>	<u>554.4</u>	<u>35</u>	<u>880.5</u>	<u>12</u>	<u>22</u>	<u>54</u>
<u>Nui (1946-2021)</u>	<u>43</u>	<u>584.3</u>	<u>36</u>	<u>838.4</u>	<u>21</u>	<u>7</u>	<u>51</u>
<u>Funafuti (1933-2021)</u>	<u>46</u>	<u>671.1</u>	<u>32</u>	<u>896.9</u>	<u>22</u>	<u>8</u>	<u>44</u>
<u>Niulakita (1953-2021)</u>	<u>45</u>	<u>691.3</u>	<u>25</u>	<u>919.3</u>	<u>30</u>	<u>3</u>	<u>43</u>

TABLE 4: Monthly and Seasonal Climate Outlooks using ACCESS-S for March to May 2021



Summary Statements

Rainfall for January 2021:

Nanumea, Nui and Funafuti observed below normal rainfall, while Niulakita recorded above normal rainfall. Nanumea and Funafuti recorded their driest January on record.

Accumulated rainfall for November 2020 to January 2021, including outlook verification:

Above normal rainfall was observed at Niulakita, while below normal rainfall was observed at central and northern Tuvalu locations. The outlook issued in October was verified as consistent at all sites in Tuvalu.

Outlooks for March to May 2021:

1. SCOPIC:

The outlook for the season at Nanumea favours below normal rainfall.

The outlook for the season at Nui and Funafuti shows below normal rainfall the most likely outcome, with normal rainfall as the next most likely. Above normal rainfall as the least likely outcome.

The outlook for the season at Niulakita shows below normal rainfall the most likely outcome, with above normal rainfall as the next most likely. Normal rainfall as the least likely outcomes.

The confidence in the outlook is very high at Nanumea, moderate at Nui and Funafuti and low at Niulakita.

2. ACCESS-S:

Monthly and seasonal rainfall:

Below normal rainfall is favoured across Tuvalu for March and for the March to May period.

Monthly maximum temperature:

The outlook favours near normal maximum temperature for Nanumea, while above normal maximum temperature is favoured for Nui, Funafuti and Niulakita.

Monthly minimum temperature:

The outlook favours near normal minimum temperature for Nanumea and Nui, while above normal minimum temperature is favoured for Niulakita and Funafuti.

Seasonal maximum temperature:

The outlook for March to May at Nanumea favours near normal maximum temperature, while above normal maximum temperature is favoured at Nui, Funafuti and Niulakita.

Seasonal minimum temperature:

The outlook for the season favours above normal minimum temperature at all the main islands, while near-normal is favoured across the northern quarter of Tuvalu's EEZ.

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

Product	Date: January 2021	Stakeholder	Total Number of Participants	Number of male	Number of female
Climate Bulletin		Met staffs Disaster Members All civil servants and kaupule members	6 9	5 6	1 3
EAR Watch		Met staffs Disaster Members All civil servants and kaupule members	6 9	5 5	1 4
Monthly Climate Briefing		Met staffs Disaster Members All civil servants and kaupule members	6 9	5 5	1 4
Ocean Bulletin		Met staffs Disaster Members All civil servants and kaupule members	6 9	5 4	1 5
Total			60	40	20