Pacific Islands - Online Climate Outlook Forum (OCOF) No. 152

Country: Palau

TABLE 1: Monthly Rainfall

Station (include data period)	Feb-	Mar- 2020	Apr-2020				
	2020		Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)		Rainfa	ıll (mm)		Nalik
Koror (1951-2020)	267.2	105.4	275.6	173.6	247.7	195.6	49/69

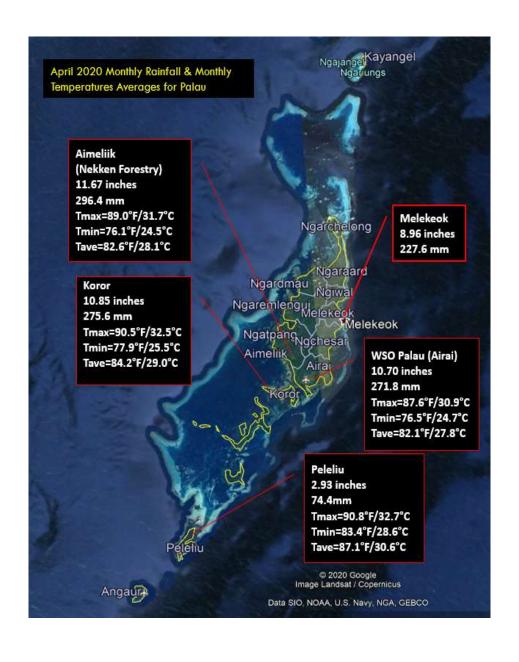


TABLE 2: Three-month Rainfall for February to April 2020

Station	Three-month Total 33%tile 67%tile		Median	Rank	SCOPIC forecast probabilities based on NINO3.4 November - December 2019				Verification: Consistent, Near-		
	Rainfall (mm)					B-N	N	A-N	LEPS	consistent, Inconsistent?	
Koror (1951-2020)	648.2	Normal	539.1	771.9	674.1	31/69	48	33	19	26	Near- consistent

TABLE 3: Seasonal Climate Outlooks using SCOPIC for June to August 2020

Predictor and Period used: NINO3.4 for March to April 2020

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)	LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
Koror (1951-2020)	45	1205.9	55	0	56

Station	Below Normal (prob)	33%ile Rainfall (mm)	Normal (prob)	67%ile Rainfall (mm)	Above Normal (prob)	LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
Koror (1951-2020)	38	1118.6	29	1330.8	33	-1	32

Monthly and Seasonal Climate Outlooks using ACCESS-S for June to August 2020

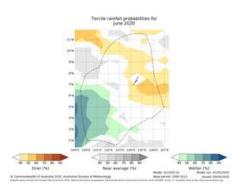


Figure 1 Monthly Rainfall for June 2020.

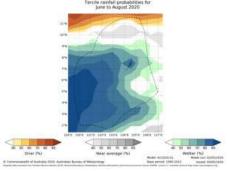


Figure 4 Seasonal Rainfall for June to August 2020.

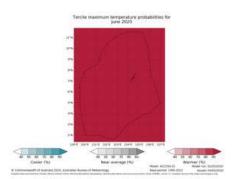


Figure 2 Monthly Maximum Temperature for June 2020.

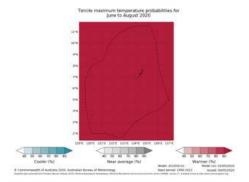


Figure 5 Seasonal Maximum Temperature for June to August 2020.

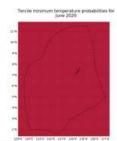


Figure 3 Monthly Maximum Minimum Temperature for June 2020.

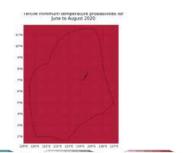


Figure 6 Seasonal Maximum Minimum Temperature June to August 2020.

Summary Statements

Rainfall for April 2020: For the first 23 days of April, generally dry trade-winds were observed over the Republic of Palau. At that time, Koror recorded 123.2 mm of rainfall. On the last week of April, mainly trade-wind convergence north of the equatorial troughs and embedded circulations, all located south of the main islands of Palau, increased rainfall totals across Palau. Koror recorded above normal rainfall for April 2020.

Accumulated rainfall for February to April 2020, including outlook verification: Koror recorded normal rainfall for the period February to April. The SCOPIC outlook issued in January was near-consistent as it indicated below normal as the most likely outcome.

Outlooks for June to August 2020:

1. SCOPIC: The SCOPIC outlook for June to August offers little guidance as the chances above-normal, normal and below-normal are similar.

2. ACCESS-S:

Monthly rainfall: June outlook offers little guidance as the chances of wetter, near average and drier are similar.

Monthly maximum and minimum temperatures: The outlook favours a warmer than average June.

Seasonal rainfall: The June to August outlook favours above-normal rainfall.

Seasonal maximum and minimum temperature: The June to August outlook favours a warmer than average season.

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

 $\label{eq:conditional} \mbox{Very Low: } \mbox{$X < 0.0$} \qquad \mbox{Low: } \mbox{$0 \le X < 5$} \qquad \mbox{Moderate } \mbox{$5 \le X < 10$} \qquad \mbox{Good: } \mbox{$10 \le X < 15$} \qquad \mbox{High: } \mbox{$15 \le X < 25$} \qquad \mbox{$25 \le X < 10$} \qquad \mbox{$25 \le X < 10$}$

Very High: $25 \le X < 35$ Exceptional: $X \ge 35$

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

Product	Date:	Stakeholder	Total Number	Number of	Number of
Weather & Climate Briefing	April 9		of Participants	male	female
	2020				
President of the Rep	ublic of Pala	u	1	1	
Senators of Palau			13	11	2
Delegates of Palau			16	14	2
Ministers			8	6	2
Palau Public Utilities	representati	ves	2	2	
Media representative	es		4	3	1
		Total	44	37	7

April 2020 Timeline: From the last week of March through first week of April, manmade fires were reported in several States (Melekeok, Ngaraard, Ngardmau, and Ngatpang). Palau Public Utilities Corporation (PPUC) announces voluntary conservation of water for Palau. PPUC issued Water Shortage Alerts for three States of the Republic (Ngerchelong, Aimeliik and Airai). By April 7, PPUC announces *mandatory* conservation (limited water usage for essential use only; no car or pavement washing). On April 9, 2020, Staff Meteorologist, Kikuko Mochimaru, provided a Weather and Climate Briefing at the Leadership meeting with the President of the Republic of Palau, Senators, Delegates, and representatives from PPUC, the media and other agencies. By April 13, water levels declined substantially for Ngerikiil Water Source and slightly for Ngerimel Dam. On this same day, daily water rationing was implemented for the hours from 11pm to 5am. On April 16, PPUC lifted the



Figure 3 Slash and burn agricultural practices gone bad for Melekeok and Ngaraad States on April 29, 2020. Photo by Ebiil Society, Ann Singeo.

Nation-wide water rationing except for a few hamlets in Aimeliik and Ngerchelong. *Mandatory* conservation continued through the month of April. No fires were reported during the voluntary and mandatory water

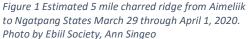




Figure 2 Palau Public Utilities Corporation (PPUC) graph of declining water levels of Ngerimel Dam and Ngerikiil water source for April 1-8, 2020



conservation period until April 29, where slash and burn agricultural practices went out of control affecting Melekeok and Ngaraad States, again.