

Republic of Korea-Pacific Islands Climate Prediction Services Project

Summary: August to October 2021 (ASO)

2021-07 Edition

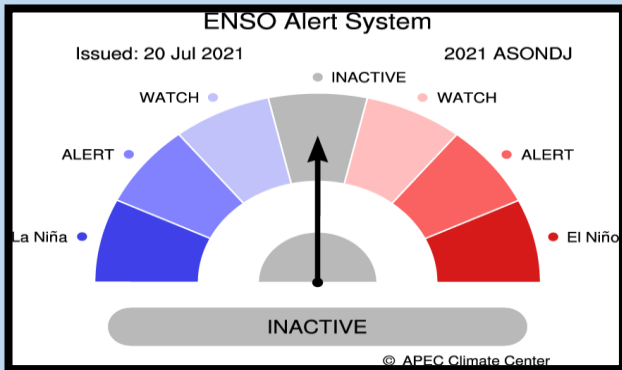


Climate Outlook for August 2021 ~ January 2022

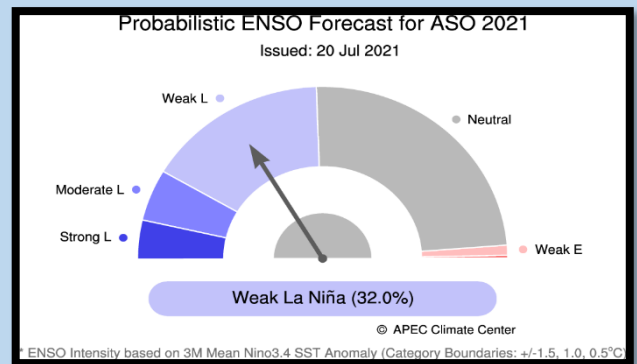
- The APCC ENSO Alert suggests “INACTIVE”. During June 2021, negative sea surface temperature anomalies were observed over the equatorial Pacific. The Niño3.4 index is expected to decrease from -0.36°C and persist below -0.5 during August 2021 – January 2022. Based on the running 3-month mean Niño3.4 index, the latest APCC ENSO outlook suggests an increasing chance of La Niña conditions from 49% to 57% during the forecast period.
- Strongly enhanced probability for above normal temperatures is predicted for Micronesia, Melanesia (excluding equatorial region) and southern Polynesia for August 2021 – January 2022.
- A tendency for above normal precipitation is predicted for Micronesia (excluding equatorial region) for August 2021 – January 2022.
- Please see <https://apcc21.org/ser/outlook.do?lang=en> for more information.

ENSO

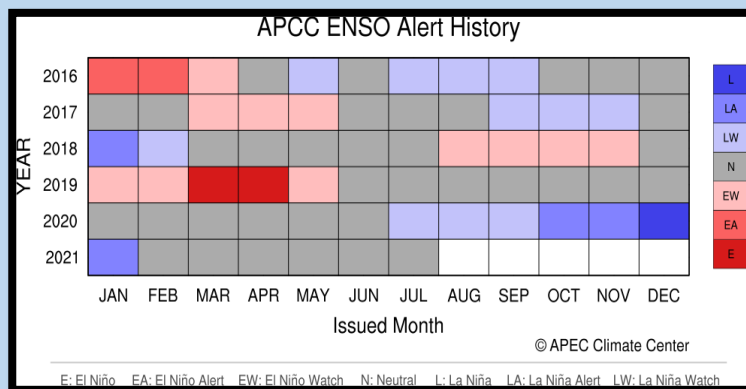
Current Status



ENSO Forecast ASO



ENSO Alert History





PICASO & CLIK[®] Summary: August to October 2021 (ASO)

RAINFALL OUTLOOK

Model	PICASO	CLIK [®]
Status	COUNTRY (Area)	
Above Normal	Cook Is - (Rarotonga) Fiji – (Udu Point, Ono-i-lau, Nabouwalu, Nadi, Suva) FSM – (*Chuuk) Republic of Marshall Island – (Majuro) Palau – (Koror) PNG – (Madang, Port Moresby, Misima, Nadzab, Momote, Kavieng) Samoa – (Apia) Solomon Is – (Taro Is., Munda, Auki, Honiara, Henderson, Kirakira) Tonga – (Nukualofa, Ha’apai, Keppel Mata’aho, *Niuafu’ou,) Vanuatu – (Port Vila, Sola, Pekoia, Lamap, Bauerfield, White Grass, Aneityum)	Cook Is – (Rarotonga) Fiji – (Suva, Nadi, Ono-i-lau, Nabowalu, Udu Point) FSM - (Pohnpei) Republic of Marshall Island Palau PNG – (Port Moresby, Misima, Nadzab, Madang) Solomon Island – (Honiara, Henderson) Tonga Vanuatu
Normal	FSM – (Pohnpei) Niue – (Hanan Airport) Solomon Island – (Santa Cruz)	Fiji – (Rotuma) FSM - (Yap, Chuuk) Niue Samoa Solomon Island – (Kirakira, Santa Cruz)
Below Normal	Cook Is - (Penrhyn) Fiji – (Rotuma) FSM – (*Chuuk, Yap, Pohnpei) Kiribati – (Tarawa, Kanton, Butaritari, Kiritimati) Republic of Marshall Island – (Kwajalein) Nauru Samoa – (Lauli’i, Afiamalu, Faleolo) Tonga – (Lupepau’u, *Niuafu’ou) Tuvalu – (Funafuti, Nui, Nanumea, Niulakita)	Cook Is - (Penrhyn) Kiribati Nauru PNG – (Momote, Kavieng) Solomon Island – (Auki, Munda, Taro Island) Tuvalu Tokelau

Note: * indicate stations that have equal or similar probability of getting Above normal, Normal and Below normal

TEMPERATURE OUTLOOK : CLIK[®] toolkit

Status	COUNTRY (Area)
Above Normal	Cook Is (Rarotonga, southern group), FSM , Fiji , Republic of Marshall Is (Kwajalein), Kiribati - (Tarawa, Butaritari), Nauru , Niue , Palau , PNG , Samoa , Solomon Islands , Tonga , Tokelau , Tuvalu , Vanuatu .
Normal	Cook Is (Penrhyn, northern group), Kiribati - (Kanton, Kiritimati), Republic of Marshall Islands (Majuro)
Below Normal	

Republic of Korea-Pacific Islands Climate Prediction Services Project PICASO Regional Rainfall Forecast (ASO)

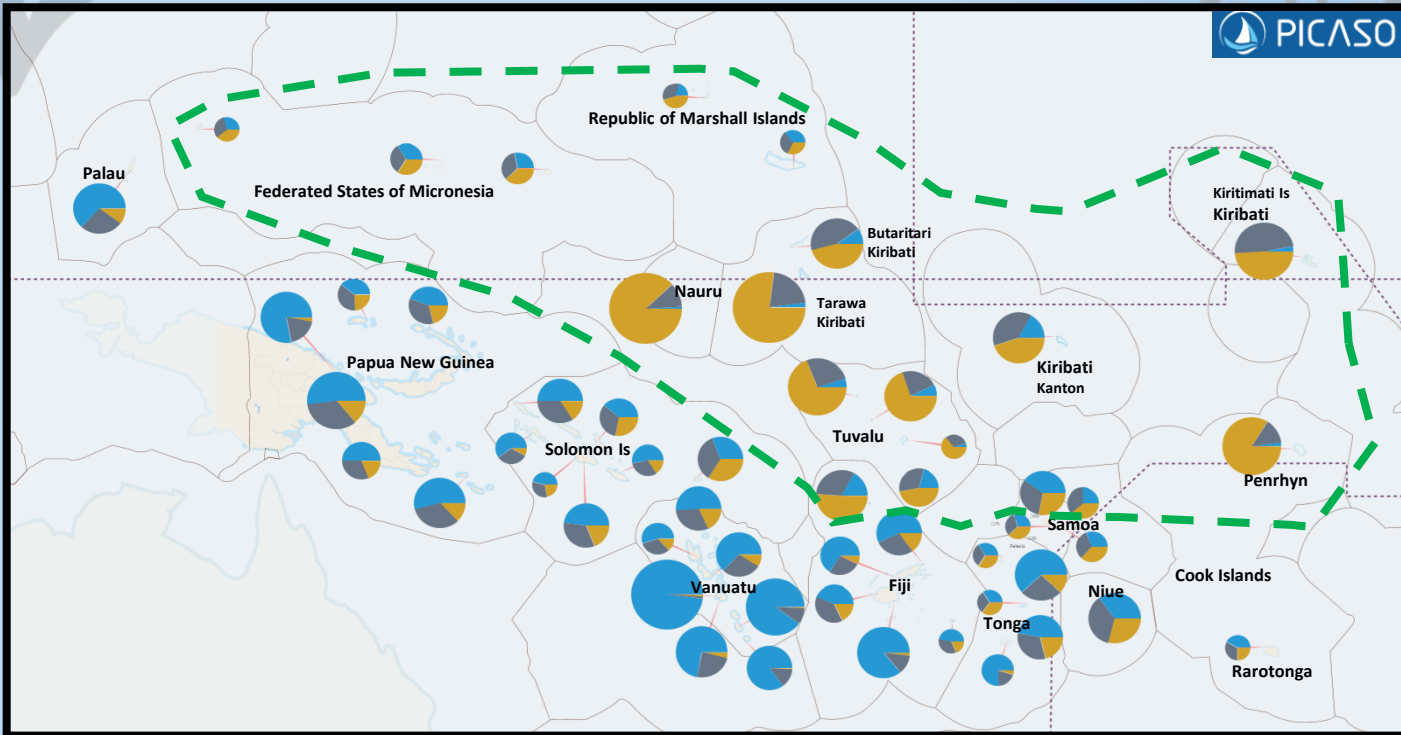


Figure 1: Regional outlook map of the Pacific. In general, all stations enclosed within the green-dash line anticipated to have Below Normal (BN) rainfall. Normal (N) to Above Normal (AN) rainfall is predicted for stations outside the green-dashed line. (Note: the larger the pie chart the higher the forecast skills.)

OUTLOOK TABLE BY COUNTRY

Station	Tercile Probability			Verification Score (LEPS)	Verification Score (HSS)	Hit/NearMiss/Miss				
	KEY	BN	N				AN			
Cook Islands										
Penrhyn		84%		14%	31	Very High	50	10	3	2
Rarotonga		25%	33%	42%	-7.2	Very Low	-10	4	4	7
Fiji										
Rotuma		51%	32%	17%	16.7	High	42.3	8	3	2
Udu Point		15%	28%	57%	13.5	Good	22.7	5	6	0
Nabouwalu		7%	27%	66%	7.2	Moderate	-9.1	3	7	1
Nadi Airport		18%	38%	44%	7.9	Moderate	25	7	3	4
Suva		12%	86%		21.2	High	30.4	7	6	1
Ono I Lau		18%	35%	47%	-26.6	Very Low	-15.4	3	4	6
Kiribati										
Kiritimati		49%		48%	30.3	Very High	30	8	7	0
Butaritari		46%		44%	10	High	0	5	9	1
Tarawa		77%		21%	50.9	Excellent	50	10	5	0
Kanton		45%		38%	17%	High	37.5	7	4	1
Marshall Islands										
Kwajalein Bucholz Aaf		45%	35%	20%	-2.7	Very Low	-10	4	6	5
Majuro		32%	32%	35%	-3.9	Very Low	-30	2	5	8

Republic of Korea-Pacific Islands Climate Prediction Services Project PICASO Regional Rainfall Forecast (ASO)



Station	Tercile Probability				Verification Score (LEPS)			Verification Score (HSS)			Hit/NearMiss/Miss
	KEY	BN	N	AN	Score	Category	Score	Hit	Miss		
Micronesia											
✓ Chuuk WSO AP	34%	32%	34%	1.4	Low	55	9	0	6		
✓ Pohnpei	38%	34%	28%	3.5	Low	25	7	3	5		
✓ Yap Island WSO Airport	39%	32%	29%	-14.9	Very Low	-20	3	0	12		
Nauru											
✓ Nauru	88%			11	51.4	Excellent	50	4	2	0	
Niue											
✓ Hanan Airport	29%	36%	35%	21.8	High	20	7	7	1		
Palau											
✓ Koror	10	27%	63%	23	High	20	7	7	1		
Papua New Guinea											
✓ Madang	19%	78%		23.5	High	42.3	8	4	1		
✓ Port Moresby	19%	31%	50%	5.2	Moderate	3.6	5	5	4		
✓ Momote	24%	37%	39%	3.8	Low	-7.1	4	8	2		
✓ Nadzab	14%	34%	52%	27.2	Very High	51.8	9	3	2		
✓ Kavieng	21%	35%	44%	5.4	Moderate	14.3	6	4	4		
✓ Misima	13%	33%	54%	21.1	High	14.3	6	6	2		
Samoa											
✓ Afiamalu	37%	32%	31%	4.7	Low	40	6	4	5		
✓ Laulii	39%	36%	25%	1.1	Low	0	5	7	3		
✓ Faleolo	38%	32%	30%	-9	Very Low	-10	4	6	5		
✓ Apia	28%	32%	40%	14.1	Good	55	10	3	2		
Solomon Islands											
✓ Taro Island	16%	34%	50%	14.4	Good	20	7	7	1		
✓ Munda	8	32%	60%	3.7	Low	0	5	7	3		
✓ Auki	28%	33%	39%	8.3	Moderate	23.3	6	4	5		
✓ Honiara	22%	32%	46%	-4.9	Very Low	5	4	6	5		
✓ Honiara Henderson	19%	33%	48%	14	Good	15	5	9	1		
✓ Kira Kira	16%	31%	53%	4	Low	-10	4	7	4		
✓ Santa Cruz	34%	35%	31%	11.9	Good	30	8	6	1		
Tonga											
✓ Niuafuou	34%	32%	34%	-1.9	Very Low	40	7	3	5		
✓ KeppelMata'aho Airport	12	26%	62%	22.9	High	45	8	6	1		
✓ Lupepau'u	35%	31%	34%	-0.3	Very Low	70	6	5	4		
✓ Haapai	21%	32%	47%	11.3	Good	50	8	5	2		
✓ Nuku'alofa	19%	76%		2.2	Low	0	5	5	5		
Tuvalu											
✓ Nanumea	69%		26%	29.9	Very High	30	8	6	1		
✓ Nui	70%		23%	15.6	High	20	7	5	3		
✓ Funafuti	64%		31%	-20.2	Very Low	-20	3	10	2		
✓ Niulakita	47%	32%	21%	6.1	Moderate	30	8	2	5		
Vanuatu											
✓ Sola (Vanua Lava)	18%	31%	51%	10.6	Good	18.8	5	5	2		
✓ Pekoa Airport (Santo)	13%	32%	55%	3.6	Low	0	5	6	4		
✓ Lamap (Malekula)	99	28%	63%	14.7	Good	3.6	5	7	2		
✓ Bauerfield (Efate)	98%			38.5	Excellent	30	8	5	2		
✓ Port Vila	24%	72%		20.9	High	50	10	3	2		
✓ White Grass Airport	99	90%		33.8	Very High	40	9	4	2		
✓ Ancityum	14%	85%		10	Good	30	8	4	3		

Republic of Korea-Pacific Islands Climate Prediction Services Project CLIK® Rainfall Forecast (ASO)

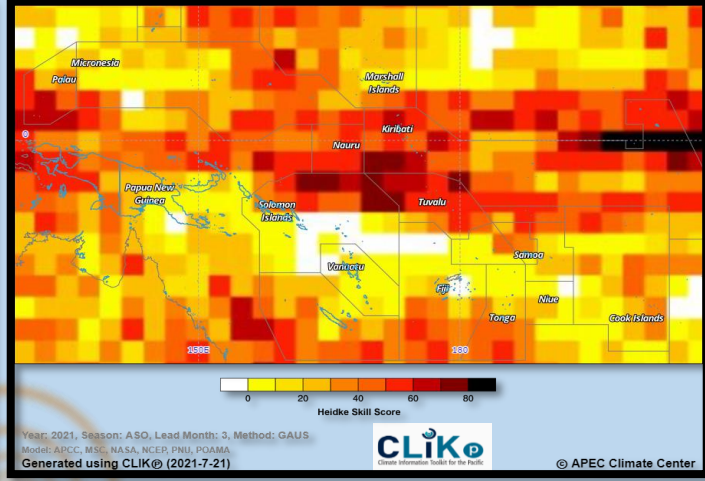
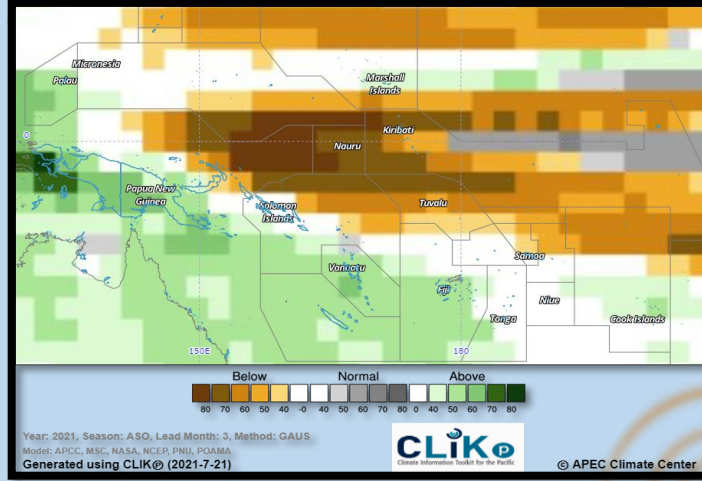


Figure 1: MME Rainfall Forecast for the Pacific Islands – ASO 2021 period **Figure 2: Rainfall Forecast Skill for the Pacific Islands – ASO 2021 period**

Country	Rainfall Outlook	Skill
Cook Islands	Below Normal - Penrhyn Above Normal - Rarotonga	Low
FSM	Normal – Yap/Chuuk Above Normal –Pohnpei	Low High
Fiji	Normal - Rotuma Above Normal elsewhere	Very Low – Low
Kiribati	Below Normal	Moderate - High
Marshall Islands	Above Normal	Low
Nauru	Below Normal	High
Niue	Normal	Low
Palau	Above Normal	Moderate
PNG	Below Normal – (Momote/Kavieng) Above Normal (Elsewhere)	Very Low – High
Samoa	Normal	Very Low
Solomon Islands	Above Normal - (Honiara/Henderson) Normal – (Kirakira, Santa Cruz) Below Normal – (Taro Is, Munda, Auki)	Very Low – Moderate
Tonga	Above Normal	Very Low
Tokelau	Below Normal	Moderate – High
Tuvalu	Below Normal	High
Vanuatu	Above Normal	Very Low - Low

Table 1: Rainfall Outlook and Skill for the Pacific Islands.

Note: Variation in the skill is due to model agreement and data availability at each location.

Republic of Korea-Pacific Islands Climate Prediction Services Project CLIK[®] Temperature Forecast (ASO)

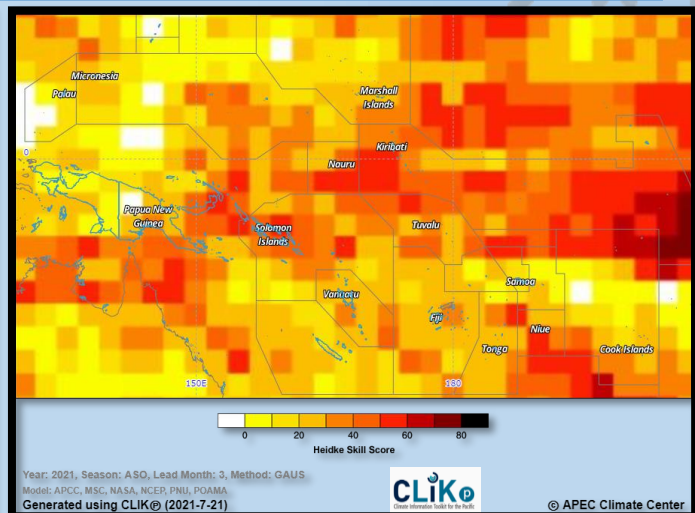
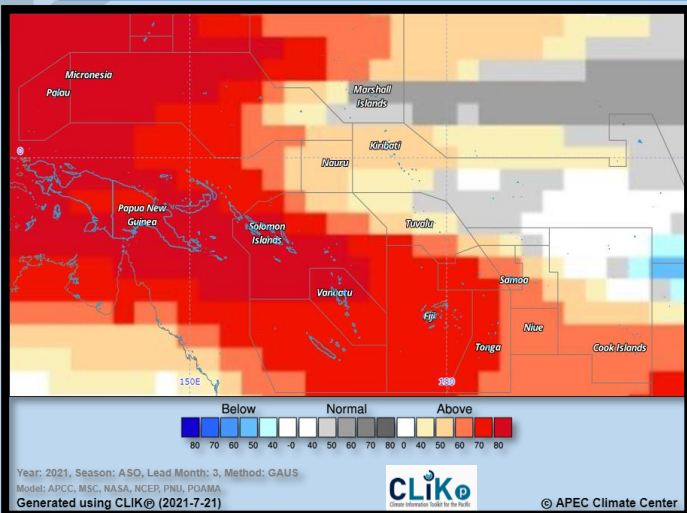


Figure 3: MME Temperature Forecast for the Pacific Islands – ASO 2021 period **Figure 4:** Air Temperature Forecast Skill for the Pacific Islands – ASO 2021 period

Country	Air Temperature Outlook	Skill
Cook Islands	Normal (Penrhyn) Above Normal (Rarotonga)	High Low
FSM	Above Normal	Low - Moderate
Fiji	Above Normal	Low - Moderate
Kiribati	Above Normal (Tarawa/Butaritari) Normal (Kiritimati/Kanton)	Moderate
Marshall Islands	Normal (Majuro) Above Normal (Kwajalein)	Low
Nauru	Above Normal	Moderate
Niue	Above Normal	High
Palau	Above Normal	Low
PNG	Above Normal	Low - Moderate
Samoa	Above Normal	Low
Solomon Islands	Above Normal	Moderate - High
Tonga	Above Normal	Very Low - Moderate
Tokelau	Above Normal	Moderate
Tuvalu	Above Normal	Low - High
Vanuatu	Above Normal	Low - Moderate

Table 2: Temperature Outlook and Skill for the Pacific Islands.

Republic of Korea-Pacific Islands Climate Prediction Services Project



Important:

This publication is developed from information in PICASO and CLIK®, products of the Republic of Korea-Pacific Islands Climate Prediction Services Project (ROK-PI CliPS).

This resource is compiled to provide dynamical model data to support and complement information generated by Pacific Islands NMHS.

Contact your location Meteorology Service for site specific forecasts.

PICASO

PICASO (Pacific Island Countries Advanced Seasonal Outlook) is a PC-based seasonal prediction tool tailored for the Pacific Island countries jointly developed by APCC and SPREP through the ROK-PI CliPS project.

PICASO produces probabilistic forecasts of the seasonal mean rainfall of the given weather stations by customizing the data from the APCC dynamical seasonal prediction multi-model ensemble.

CLIK®

The rainfall and temperature forecasts are derived from a multi-model ensemble (MME) of all available Dynamical Models that are provided by WMO Global Producing Centers (GPCs) available on the Climate Services Toolkit for the Pacific (CLIK Pacific or CLIK®).

CLIK® is a product of the Republic of Korea-Pacific Islands Climate Prediction Services Project (ROK-PI CliPS).

Visit the CLIK® Online Climate Prediction System: clikp.sprep.org

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