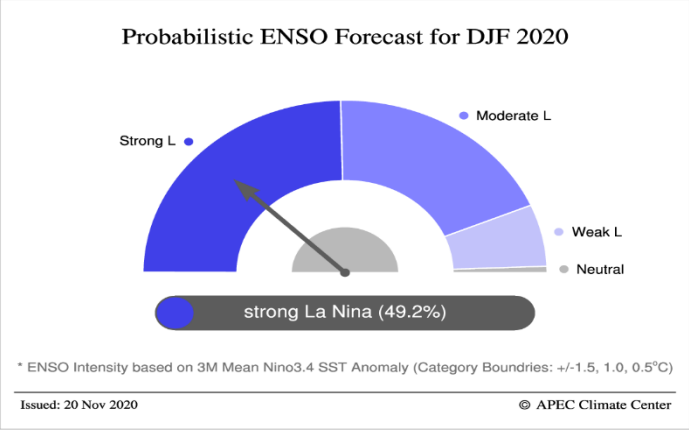
Republic of Korea-Pacific Islands Climate Prediction Services Project

2020-11 Edition

Summary: December 2020 to February 2021 (DJF)



The APCC ENSO outlook suggests strong La Niña (~49% probability) for December 2020 to February 2021 and the probability for the La Niña conditions is likely to decrease for March to May 2021, when its intensity is expected to turn to a weak La Niña (~34% probability).

RAINFALL OUTLOOK

Status	COUNTRY (Area)
	PICASO
Above Normal	**Cook Is -** (Rarotonga), **Fiji –** (Udu Point, Rotuma,Nabouwalu, Nadi Airport, Suva, Ono-i-lau), **Marshall Is**. – (Majuro, Kwajalein),**FSM** – (Yap, Pohnpei, Chuuk), **Niue** – (Hanan Airport), **Palau** – (Koror), **PNG** – (Port Moresby, Misima,), **Samoa** – (Apia, Lauli'i), **Solomon Is –** (Auki, Honiara, Henderson, Kirakira, Santa Cruz), **Tonga, Tuvalu –** (Niulakita)**, Vanuatu.**
Normal	**Samoa** – (Lauli'i)
Below Normal	**Cook Is -** (Penrhyn), **Fiji –** (Suva, Ono-i-lau), **Kiribati, Nauru**, **PNG** – (Madang, Kavieng, Momote, Nadzab), **Samoa** – (Afiamalu, *Faleolo), **Solomon Is –** (Taro Is., Munda)**, Tuvalu –** (Funafuti, Nui, Nanumea)
	CLIK®
Above Normal	**Cook Is –** (Ratotonga)**, FSM**, **Fiji, Marshall Is** – (Majuro, Kwajalein), **Niue, Palau, PNG –** (Misima, Port Moresby), **Samoa**, **Solomon Is, Tonga**, **Vanuatu** – (Aneityum, Pekoa, Sola, Whitegrass, Bauerfield, Lamap, Port Vila, Sola)
Normal	
Below Normal	**Cook Is -** (Penrhyn)**, Kiribati, Nauru, PNG** – (Nadzab,Kavieng,Momote), **Tuvalu, Tokelau,**

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

TEMPERATURE OUTLOOK

Status	COUNTRY
	CLIK®
Above Normal	**Cook Is (south), FSM, Fiji, Marshall Is, Kiribati, Nauru, Niue, Palau, PNG, Solomon Is., Tonga, Vanuatu**.
Normal	**Samoa**
Below Normal	**Cook Is (north), Kiribati (Kanton, Kiritimati), Tokelau, Tuvalu,**

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PICASO Regional Rainfall Forecast

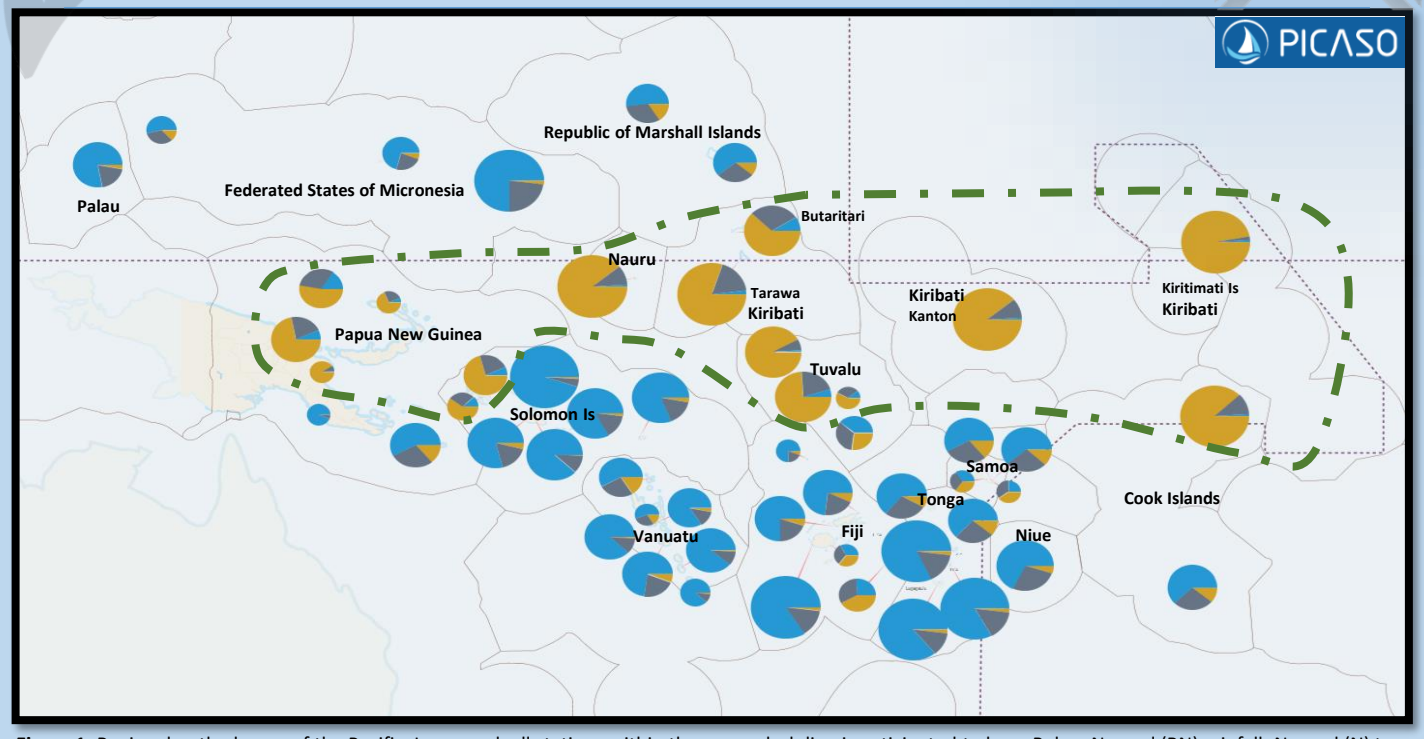

Figure 1: Regional outlook map of the Pacific. In general, all stations within the green-dash line is anticipated to have Below Normal (BN) rainfall. Normal (N) to Above Normal (AN) rainfall is predicted for stations above and below the green line. *(Note: the larger the pie chart the higher the forecast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

PICASO

OUTLOOK TABLE BY COUNTRY

Station	Tercile Probability	Verification Score (LEPS)		Verification Score (HSS)	Hit	Near	Miss/Miss
Cook Islands	KEY: BN / N / AN						
Penrhyn	88% 11	38.4	Excellent	46.4	9	5	0
Rarotonga	11 27% 62%	19.9	High	35.7	8	5	1
Fiji							
Rotuma	6 19% 75%	-20.4	Very Low	-28.6	2	8	4
Udu Point	7 20% 73%	18.7	High	45.5	7	3	1
Nabouwalu	5 20% 75%	22.4	High	59.1	8	2	1
Nadi Airport	14% 84%	41.4	Excellent	67.9	11	2	1
Suva	35% 32% 33%	-1.9	Very Low	-28.6	2	5	7
Ono I Lau	42% 32% 26%	7.5	Moderate	30.8	7	2	4
Kiribati							
Kiritimati	97%	58.8	Excellent	57.1	10	4	0
Butaritari	62% 29% 9	26.5	Very High	51.8	9	3	2
Tarawa	80% 18%	55.6	Excellent	57.1	10	4	0
Kanton	89% 10	52.4	Excellent	46.4	9	5	0
Marshall Islands							
Kwajalein Bucholz Aaf	16% 32% 52%	14	Good	41.1	7	3	4
Majuro	11 28% 61%	10.9	Good	-7.1	4	8	2

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PICASO Regional Rainfall Forecast

Station	Tercile Probability			Verification Score (LEPS)		Verification Score (HSS)			
	KEY	BN	N	AN						
Micronesia										
Chuuk WSO AP	6	23%	71%		5.7	Moderate	25	7	2	5
Pohnpei		23%	75%		36.5	Excellent	51.8	9	5	0
Yap Island WSO Airport	13%	33%	54%		2.9	Low	14.3	6	4	4
Niue										
Hanan Airport	5	27%	68%		25.4	Very High	62.5	9	3	2
Palau										
Koror		19%	78%		23.9	High	14.3	6	6	2
Papua New Guinea										
Madang		72%	21%	7	21.6	High	25	6	5	2
Port Moresby	5	94%			2.1	Low	3.6	4	5	4
Momote		53%	31%	16%	10.3	Good	35.7	8	4	1
Nadzab		91%		8	-19.1	Very Low	-17.9	3	3	7
Kavieng		69%	25%	6	0.3	Low	14.3	5	2	6
Misima	14%	28%	58%		6	Moderate	14.3	6	6	1
Samoa										
Afiamalu		40%	35%	25%	-5.5	Very Low	-23.2	2	7	5
Lauli'i	12	27%	61%		16.1	High	42.3	8	2	3
Faleolo		35%	31%	34%	-0.5	Very Low	-7.1	1	3	10
Apia	14%	28%	58%		16.4	High	46.4	9	4	1
Solomon Islands										
Taro Island		71%	22%	7	14.6	Good	19.6	6	5	3
Munda		60%	28%	12	4.6	Low	19.6	5	6	3
Auki		95%			36.4	Excellent	25	7	7	0
Honiara		17%	79%		30.1	Very High	35.7	8	5	1
Honiara Henderson	11	88%			27.5	Very High	46.4	9	3	2
Kira Kira		15%	83%		34.4	Very High	35.7	8	5	1
Santa Cruz		16%	81%		33	Very High	35.7	8	6	0
Tonga										
Niuafoou	8	28%	64%		16.1	High	14.3	6	7	1
KeppelMata'aho Airport	11	26%	63%		21.7	High	48.1	8	3	2
Lupepau'u		16%	82%		36	Excellent	35.7	8	5	1
Haapai		15%	83%		39.3	Excellent	57.1	10	3	1
Nuku'alofa	12	86%			39.5	Excellent	25	7	7	0
Tuvalu										
Nanumea		92%		7	33.7	Very High	35.7	8	5	1
Nui		74%	21%	5	28.2	Very High	35.7	8	4	2
Funafuti		58%	31%	11	-11.3	Very Low	-28.6	2	7	5
Niulakita	27%	34%	39%		5.5	Moderate	8.9	5	4	5
Vanuatu										
Sola (Vanua Lava)	16%	26%	58%		10.4	Good	4.5	4	5	2
Pekoa Airport (Santo)	16%	28%	56%		-0.9	Very Low	14.3	6	2	6
Lamap (Malekula)	13%	84%			13.5	Good	35.7	8	4	2
Bauerfield (Efate)	11	88%			19	High	8.9	5	7	2
Port Vila	6	21%	73%		17.8	High	14.3	6	5	3
White Grass Airport	10	89%			24.3	High	25	7	5	2
Aneityum	10	88%			3.3	Low	3.6	5	5	4

created by PICASO (2020-11-23)

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CLIK®Rainfall Forecast

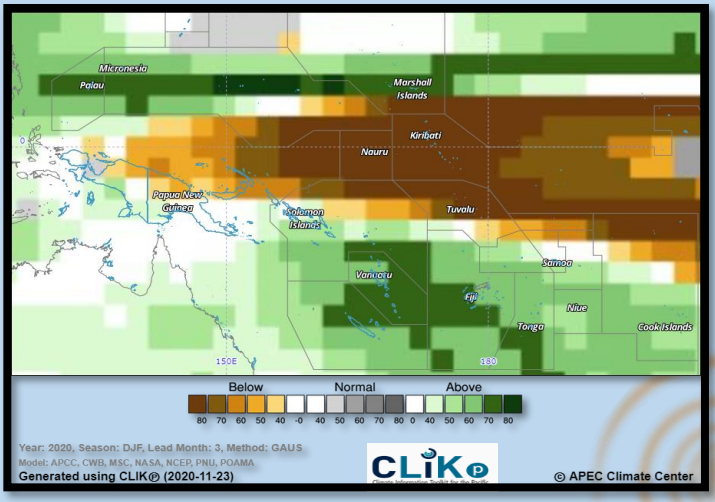

Figure 1: *MME Rainfall Forecast for the Pacific Islands – DJF 2020/21 period*

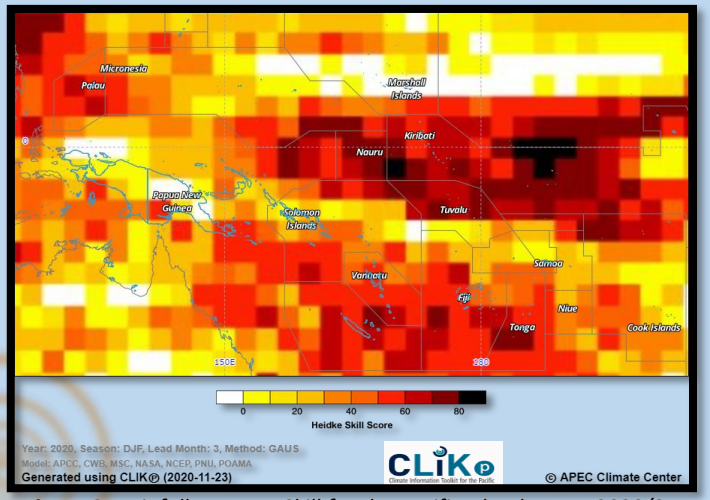

Figure 2: *Rainfall Forecast Skill for the Pacific Islands – DJF 2020/21 period*

Country	Rainfall Outlook	Skill
Cook Islands	Below Normal for northern Islands Normal – Above Normal elsewhere	Low - Moderate
FSM	Above Normal	Low - Moderate
Fiji	Above Normal	Moderate - High
Kiribati	Below Normal	High
Marshall Islands	Normal - Above Normal (central & Northern) Below Normal (Southern)	Very Low - Moderate
Nauru	Below Normal	High
Niue	Above Normal	Moderate
Palau	Above Normal	High
PNG	Normal – Above Normal (Port Moresby/Misima) Normal to Below Normal (Nadzab/Momote/Kavieng)	Moderate – High Low - Moderate
Samoa	Normal - Above Normal	Low - Moderate
Solomon Islands	Normal – Above Normal	Low - Moderate
Tonga	Above Normal	Moderate – High
Tokelau	Below Normal	Moderate
Tuvalu	Normal – Below Normal	Moderate – High
Vanuatu	Above Normal	Moderate - High

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.*

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CLIK® Rainfall Forecast

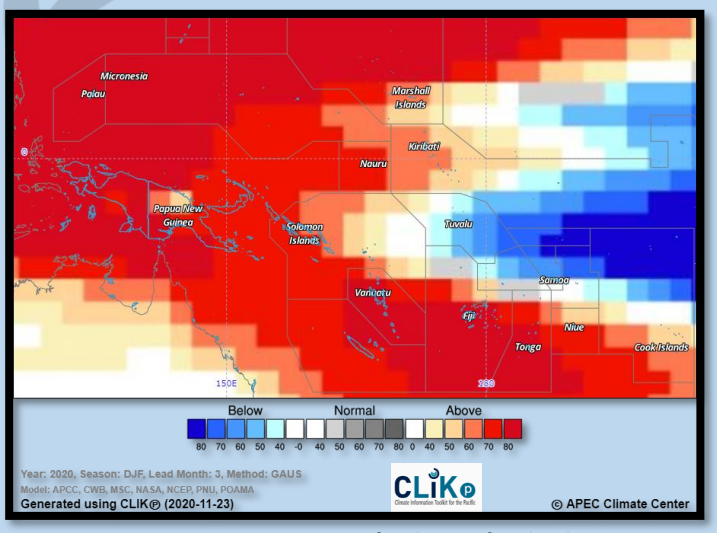

Figure 3: *MME Temperature Forecast for the Pacific Islands – DJF 2020/21 period*

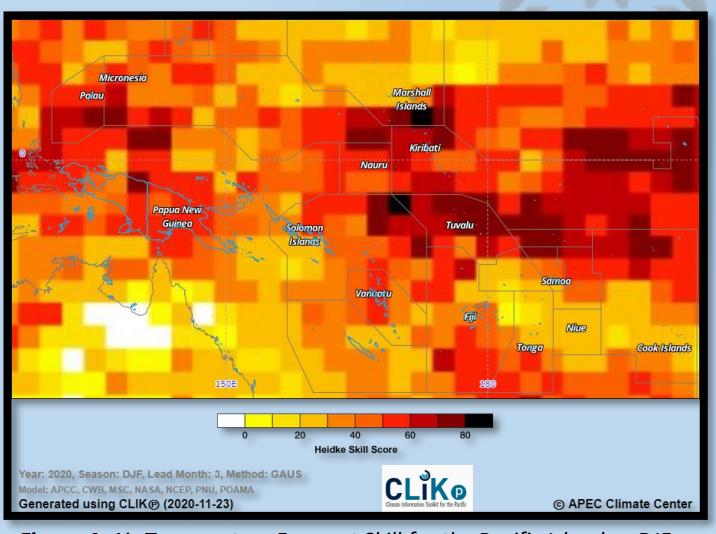

Figure 4: *Air Temperature Forecast Skill for the Pacific Islands – DJF 2020/21 period*

Country	Air Temperature Outlook	Skill
Cook Islands	Below Normal (north) Above Normal (south)	Moderate - High
FSM	Above Normal	Moderate - High
Fiji	Above Normal	Moderate - High
Kiribati	Normal to Above Normal (Tarawa/Butaritari) Below Normal (Kanton/Kiritimati)	High
Marshall Islands	Above Normal	Moderate - High
Nauru	Above Normal	High
Niue	Above Normal	Moderate
Palau	Above Normal	High
PNG	Above Normal	Moderate - High
Samoa	Normal - Below Normal	Moderate
Solomon Islands	Above Normal	Moderate - High
Tonga	Above Normal	Moderate - High
Tokelau	Below Normal	High
Tuvalu	Below Normal	High
Vanuatu	Above Normal	Moderate - High

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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