

Republic of Korea-Pacific Islands Climate Prediction Services Project Summary: May to July 2022 (MJJ)

2022-04 Edition



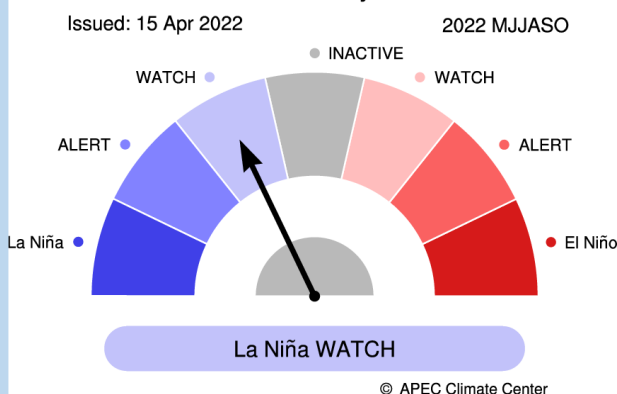
Climate Outlook for May ~ October 2022

- The APCC ENSO Alert suggests “La Niña WATCH” for May – October 2022. In February 2022, negative sea surface temperature anomalies were observed over the central and eastern tropical Pacific. The Niño3.4 index is expected to be below -0.7°C and gradually increase to -0.3°C through the forecast period, which suggests ENSO-neutral conditions. Based on the running 3-month mean Niño3.4 index, the latest APCC ENSO outlook suggests an around 51% chance of La Niña conditions with weak intensity for May – July 2022. Meanwhile, ENSO-neutral conditions are likely to be intensified and then dominant ($>52\%$) during the last three seasons for the forecast period.
- Strongly enhanced probability for above normal temperatures is predicted for Micronesia and Melanesia (excluding the boundary between them near the Date Line), and southern Polynesia for April – September 2022.
- Strongly enhanced probability for below normal precipitation is predicted for the equatorial regions for the same period.
- Please see <https://apcc21.org/ser/outlook.do?lang=en> for more information.

ENSO

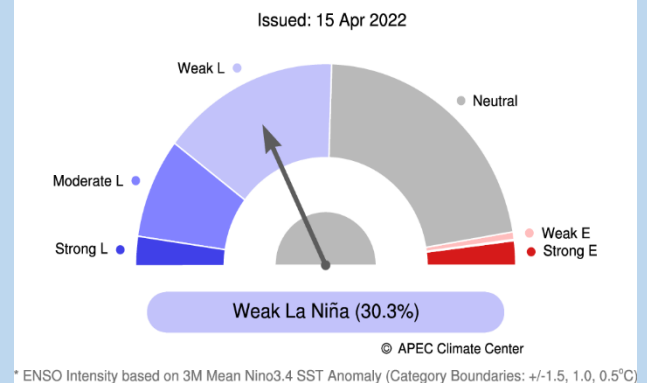
CURRENT STATUS

ENSO Alert System



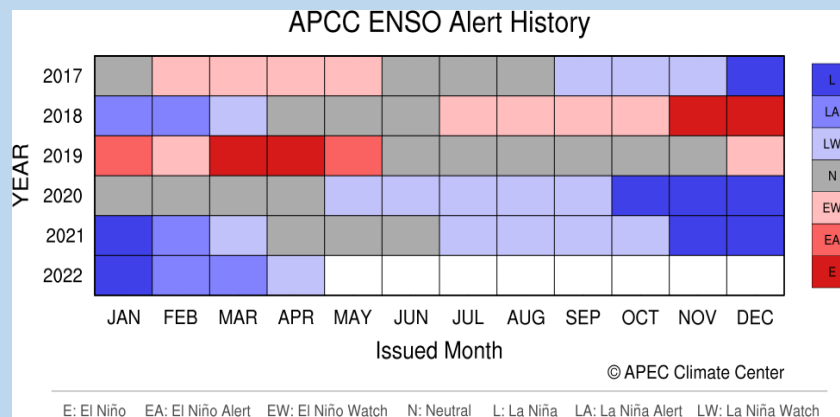
ENSO FORECAST

Probabilistic ENSO Forecast for MJJ 2022



ENSO ALERT HISTORY

APCC ENSO Alert History



Republic of Korea-Pacific Islands Climate Prediction Services Project PICASO & CLIK® Summary



RAINFALL OUTLOOK

Model	PICASO	CLIK®
Status	COUNTRY (Area)	
Above Normal	Cook Islands - (Rarotonga) Fiji - (Suva, Udu Point, Nabouwalu, Nadi, Ono-i-lau, Rotuma) FSM (Yap) Niue Palau (*Koror) PNG – (Port Moresby, Madang, Misima, Nadzab) Samoa – (Afiamalua, Apia, Lauli'i, Faleolo) Solomon Islands (Honiara, Henderson, Kirakira, Munda) Tonga (Nukualofa, Ha'apai, Niufo'ou, Keppel Mata'aho) Vanuatu – (Sola, Pekoa, Bauerfield, Port Vila, Whitegrass, Aneityum, Lamap)	Cook Islands – (Rarotonga) Fiji – (Suva, Nadi, Onoilau, Nabouwalu, Udu Point) FSM – (Pohnpei) Republic of Marshall Islands Niue Palau (*Koror) PNG – (Port Moresby, Nadzab, Misima, Madang) Solomon Islands (Honiara, Henderson, Kirakira) Tonga (Nukualofa, Ha'apai, Lupepauu, Keppel Mataaho, Niufo'ou) Vanuatu
Normal	Tonga (Lupepau'u)	FSM – (Chuuk) Samoa (Apia, Faleolo, Afiamalua, Laulii) Solomon Islands (Kirakira)
Below Normal	Cook Islands - (Penrhyn) FSM (Chuuk, Pohnpei) Kiribati - (Tarawa, Kanton, Kiritimati, Butaritari) Republic of Marshall Islands Nauru PNG – (Momote, Kavieng) Solomon Islands – (Taro Island, Auki, *Santa Cruz) Tuvalu - (Nanumea, Nui, Funafuti, Niulakita)	Cook Islands - (Penrhyn) FSM – (Yap) Fiji – (Rotuma) Kiribati Nauru PNG – (Momote, Kavieng) Solomon Islands – (Taro, Munda, Auki, Santa Cruz) Tuvalu Tokelau

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

TEMPERATURE OUTLOOK : CLIK® toolkit

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

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

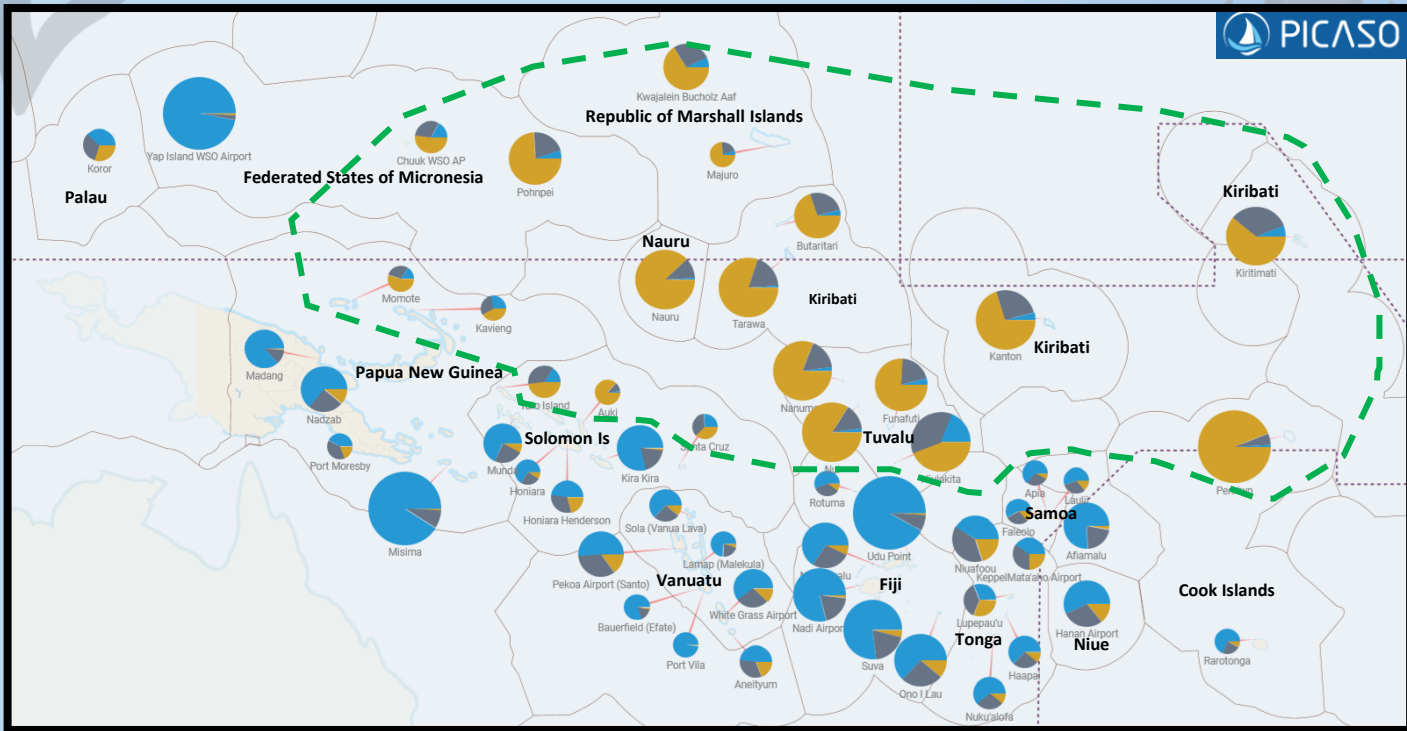


Figure 1: Regional outlook map of the Pacific. In general, all stations enclosed within the green-dash line anticipated to have Below Normal (BN) rainfall. Normal (N) to Above Normal (AN) rainfall is predicted for stations outside the green-dashed line. (Note: the larger the pie chart the higher the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

OUTLOOK TABLE BY COUNTRY

	Station	Tercile Probability				Verification Score (LEPS)		Verification Score (HSS)		Hit/NearMiss/Miss		
		KEY	BN	N	AN							
	Fiji											
<input checked="" type="checkbox"/>	Rotuma	10	34%		56%	-0.2	Very Low	6.3		6	5	5
<input checked="" type="checkbox"/>	Udu Point	7			92%	40.7	Excellent	19.2		6	7	0
<input checked="" type="checkbox"/>	Nabouwalu	7	27%		66%	12.1	Good	-9.1		3	6	2
<input checked="" type="checkbox"/>	Nadi Airport	19%			79%	23.3	High	57.8		11	4	1
<input checked="" type="checkbox"/>	Suva	19%			77%	31.6	Very High	34.4		9	7	0
<input checked="" type="checkbox"/>	Ono I Lau	11%	26%		63%	17.3	High	70		12	0	3
	Kiribati											
<input checked="" type="checkbox"/>	Kiritimati		61%	33%	6	27.1	Very High	76.6		13	2	1
<input checked="" type="checkbox"/>	Butaritari		70%	26%		13.8	Good	20		7	7	1
<input checked="" type="checkbox"/>	Tarawa		80%	19%		31.9	Very High	43.8		10	6	0
<input checked="" type="checkbox"/>	Kanton		70%	26%		25	Very High	46.4		9	5	0
	Marshall Islands											
<input checked="" type="checkbox"/>	Kwajalein Bucholz Aaf		66%	27%	7	13	Good	15.6		7	7	2
<input checked="" type="checkbox"/>	Majuro		74%	20%	6	-5	Very Low	-21.9		3	9	4

Republic of Korea-Pacific Islands

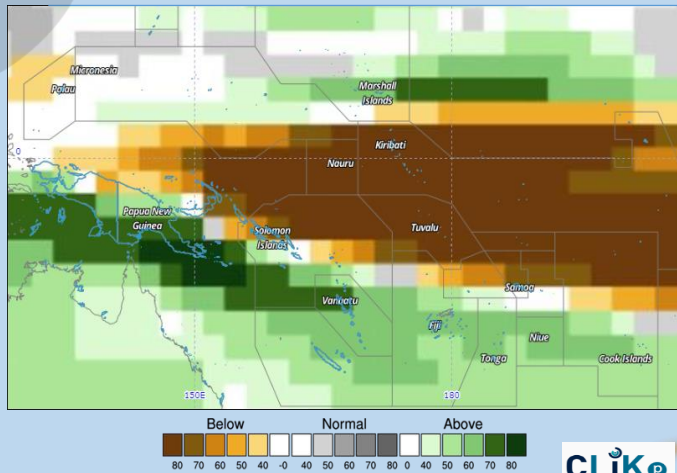
Climate Prediction Services Project

PICASO Regional Rainfall Forecast (MJJ)



Station	Tercile Probability				Verification Score (LEPS)		Verification Score (HSS)		Hit/Near/Miss		
	KEY	BN	N	AN							
Micronesia											
<input checked="" type="checkbox"/> Chuuk WSO AP	52%	31%	17%		1.6	Low	48.4		10	2	4
<input checked="" type="checkbox"/> Pohnpei	74%	21%			22.7	High	57.8		11	3	2
<input checked="" type="checkbox"/> Yap Island WSO Airport	97%				65.3	Excellent	100		16	0	0
Nauru											
<input checked="" type="checkbox"/> Nauru	88%		11%		27.3	Very High	14.3		3	4	0
Niue											
<input checked="" type="checkbox"/> Hanan Airport	14%	29%	57%		11.7	Good	43.8		10	4	2
Palau											
<input checked="" type="checkbox"/> Koror	30%	32%	38%		1.9	Low	-12.5		4	7	5
Papua New Guinea											
<input checked="" type="checkbox"/> Madang	12%	87%			5	Moderate	0		5	7	3
<input checked="" type="checkbox"/> Port Moresby	19%	39%	42%		-5.8	Very Low	-3.1		5	7	4
<input checked="" type="checkbox"/> Momote	55%	29%	16%		-0.6	Very Low	25		6	7	3
<input checked="" type="checkbox"/> Nadzab	11%	25%	64%		11	Good	34.4		9	4	3
<input checked="" type="checkbox"/> Kavieng	42%	30%	28%		-0.9	Very Low	10.9		4	6	6
<input checked="" type="checkbox"/> Misima	8%	91%			38.2	Excellent	43.8		10	6	0
Samoa											
<input checked="" type="checkbox"/> Afiamalu	21%	76%			11.6	Good	48.4		10	4	2
<input checked="" type="checkbox"/> Laulili	14%	31%	55%		-5.7	Very Low	6.3		6	6	4
<input checked="" type="checkbox"/> Faleolo	13%	29%	58%		-2.8	Very Low	-3.1		5	6	5
<input checked="" type="checkbox"/> Apia	8%	29%	63%		-3.3	Very Low	6.3		6	8	2
Solomon Islands											
<input checked="" type="checkbox"/> Taro Island	48%	36%	16%		4.6	Low	25		8	7	1
<input checked="" type="checkbox"/> Munda	8%	24%	68%		6.4	Moderate	25		8	5	3
<input checked="" type="checkbox"/> Auki		87%		11%	-8.7	Very Low	-12.5		4	7	5
<input checked="" type="checkbox"/> Honiara	9%	25%	66%		-2.1	Very Low	6.3		3	10	3
<input checked="" type="checkbox"/> Honiara Henderson	21%	31%	48%		0.7	Low	-3.1		5	6	5
<input checked="" type="checkbox"/> Kira Kira	19%	79%			13.2	Good	39.1		8	7	1
<input checked="" type="checkbox"/> Santa Cruz	38%	36%	26%		-2.6	Very Low	6.3		6	6	4
Tonga											
<input checked="" type="checkbox"/> Niuafuou	20%	39%	41%		13.2	Good	39.1		8	6	2
<input checked="" type="checkbox"/> KeppelMata'aho Airport	25%	35%	40%		0.8	Low	15.6		5	5	6
<input checked="" type="checkbox"/> Lupepau'u	31%	38%	31%		4.9	Low	15.6		7	3	6
<input checked="" type="checkbox"/> Haapai	11%	26%	63%		1.1	Low	-3.1		5	7	4
<input checked="" type="checkbox"/> Nuku'alofa	11%	28%	61%		3.9	Low	25		7	7	2
Tuvalu											
<input checked="" type="checkbox"/> Nanumea	81%	17%			32.9	Very High	67.2		11	5	0
<input checked="" type="checkbox"/> Nui	84%	14%			28.6	Very High	25		8	8	0
<input checked="" type="checkbox"/> Funafuti	76%	20%			17.7	High	15.6		7	8	1
<input checked="" type="checkbox"/> Niulakita	44%	37%	19%		25.9	Very High	20.3		6	9	1
Vanuatu											
<input checked="" type="checkbox"/> Sola (Vanua Lava)	11%	26%	63%		4.9	Low	0		4	6	2
<input checked="" type="checkbox"/> Pekoa Airport (Santo)	15%	34%	51%		11	Good	40		9	3	3
<input checked="" type="checkbox"/> Lamap (Malekula)	21%	74%			-5.1	Very Low	3.6		5	6	3
<input checked="" type="checkbox"/> Bauerfield (Efate)	16%	81%			-3.2	Very Low	-21.9		3	9	4
<input checked="" type="checkbox"/> Port Vila	98%				-8.1	Very Low	0		5	6	4
<input checked="" type="checkbox"/> White Grass Airport	12%	28%	60%		7.1	Moderate	40		9	4	2
<input checked="" type="checkbox"/> Ancityum	19%	33%	48%		3.3	Low	6.3		6	9	1

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



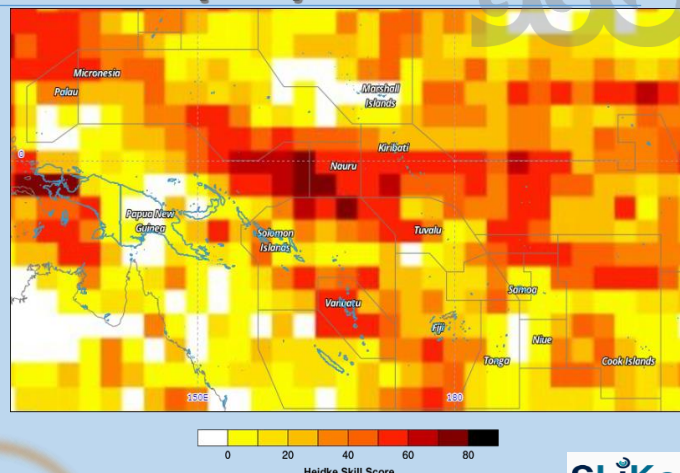
Year: 2022, Season: MJJ, Lead Month: 3, Method: GAUS

Model: APCC, CMCC, CWB, MSC, NCEP, PNU, POAMA

Generated using CLIK® (2022-4-19)

© APEC Climate Center

Figure 1: MME Rainfall Forecast for the Pacific Islands – MJJ 2022 period



Year: 2022, Season: MJJ, Lead Month: 3, Method: GAUS

Model: APCC, CMCC, CWB, MSC, NCEP, PNU, POAMA

Generated using CLIK® (2022-4-19)

© APEC Climate Center

Figure 2: Rainfall Forecast Skill for the Pacific Islands – MJJ 2022 period

Country	Rainfall Outlook	Skill
Cook Islands	Below Normal - Penrhyn Above Normal - Rarotonga	Low - Moderate
FSM	Above Normal – Pohnpei Normal – Chuuk Below Normal – Yap	Low – Moderate
Fiji	Above Normal except Rotuma (BN)	Low
Kiribati	Below Normal	Low – High
Marshall Islands	Above Normal	Very Low
Nauru	Below Normal	High
Niue	Above Normal	Very Low
Palau	Little guidance (Climatology)	Moderate
PNG	Below Normal – Momote, Kavieng Above Normal – Port Moresby, Nadzab, Misima, Madang	Very Low - Low
Samoa	Normal	Low
Solomon Islands	Below Normal – Taro Is., Munda, Auki, Santa Cruz Above Normal – Honiara, Henderson Normal – Kirakira	Very Low - Low
Tonga	Above Normal	Very Low - Moderate
Tokelau	Below Normal	Moderate
Tuvalu	Below Normal	Very Low - Moderate
Vanuatu	Above Normal	Low - 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.

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

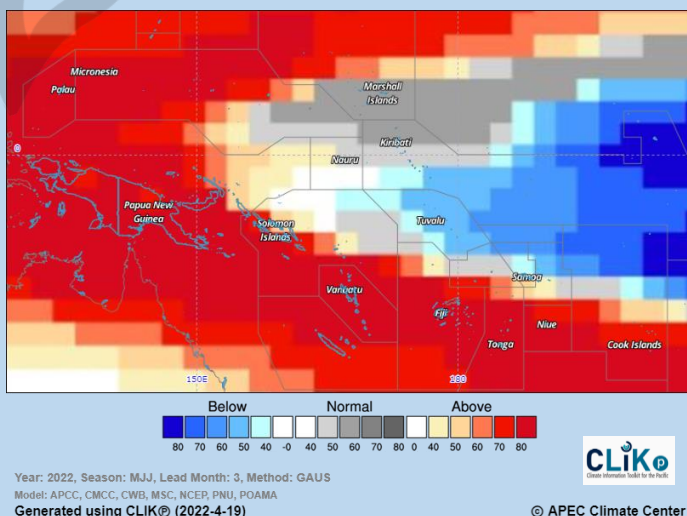


Figure 3: MME Temperature Forecast for the Pacific Islands – MJJ 2022 period

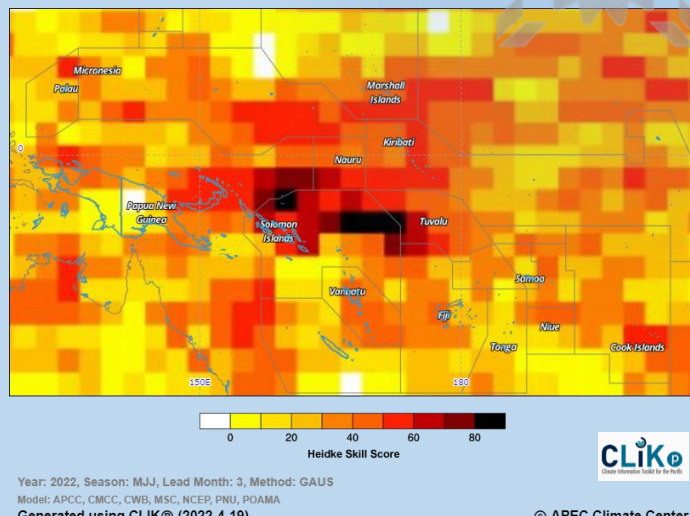


Figure 4: Air Temperature Forecast Skill for the Pacific Islands – MJJ 2022 period

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

CONTACT INFORMATION:

For more information, please contact Mr. Tile Tofaeono, Climate Prediction Services Coordinator, SPREP tilet@sprep.org



PO Box 240, Apia, Samoa
E: sprep@sprep.org
T: +685 21929
F: +685 20231
W: www.sprep.org

