

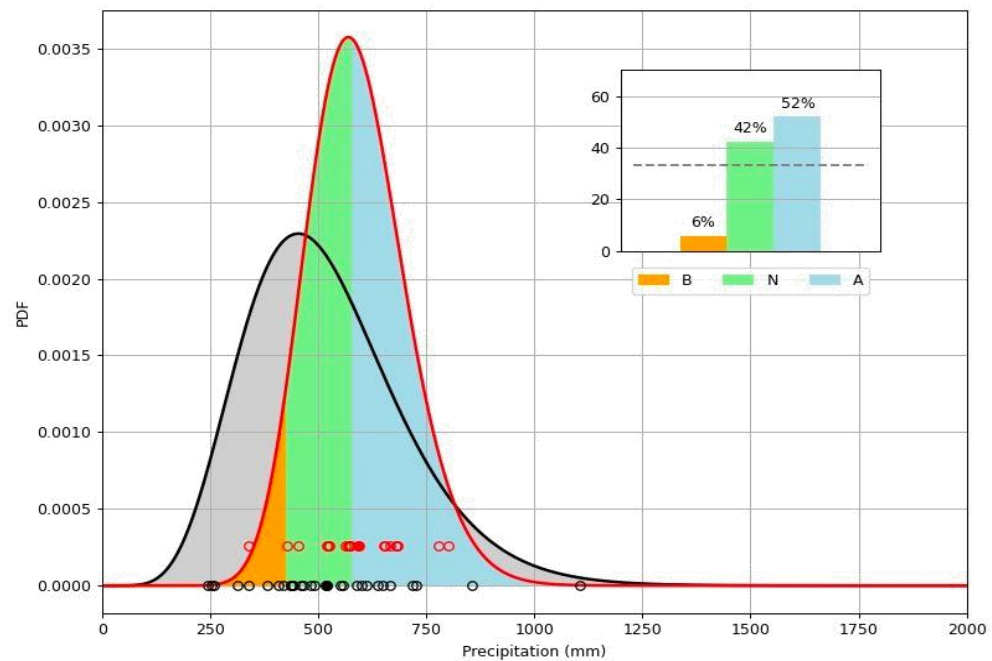
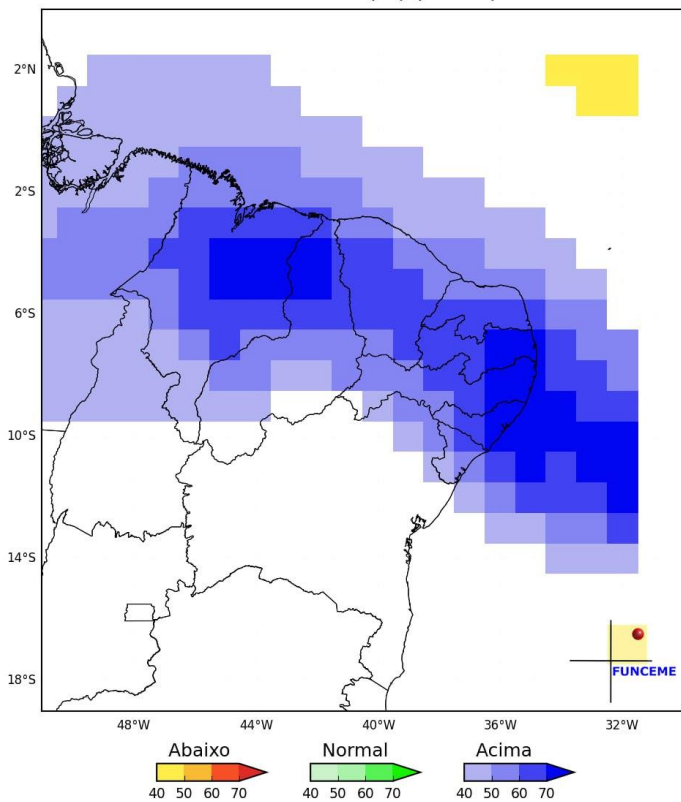
**GOVERNO DO
ESTADO DO CEARÁ**
Secretaria dos Recursos Hídricos

AVALIAÇÃO DA QUADRA CHUVOSA FEVEREIRO A MAIO

25 de Junho de 2023

O PROGNÓSTICO DE JANEIRO

ECHAM4.6 - JAN/2023 - FMA/2023
PROB PREC (%) (81-10)



Observado: 597,4 mm

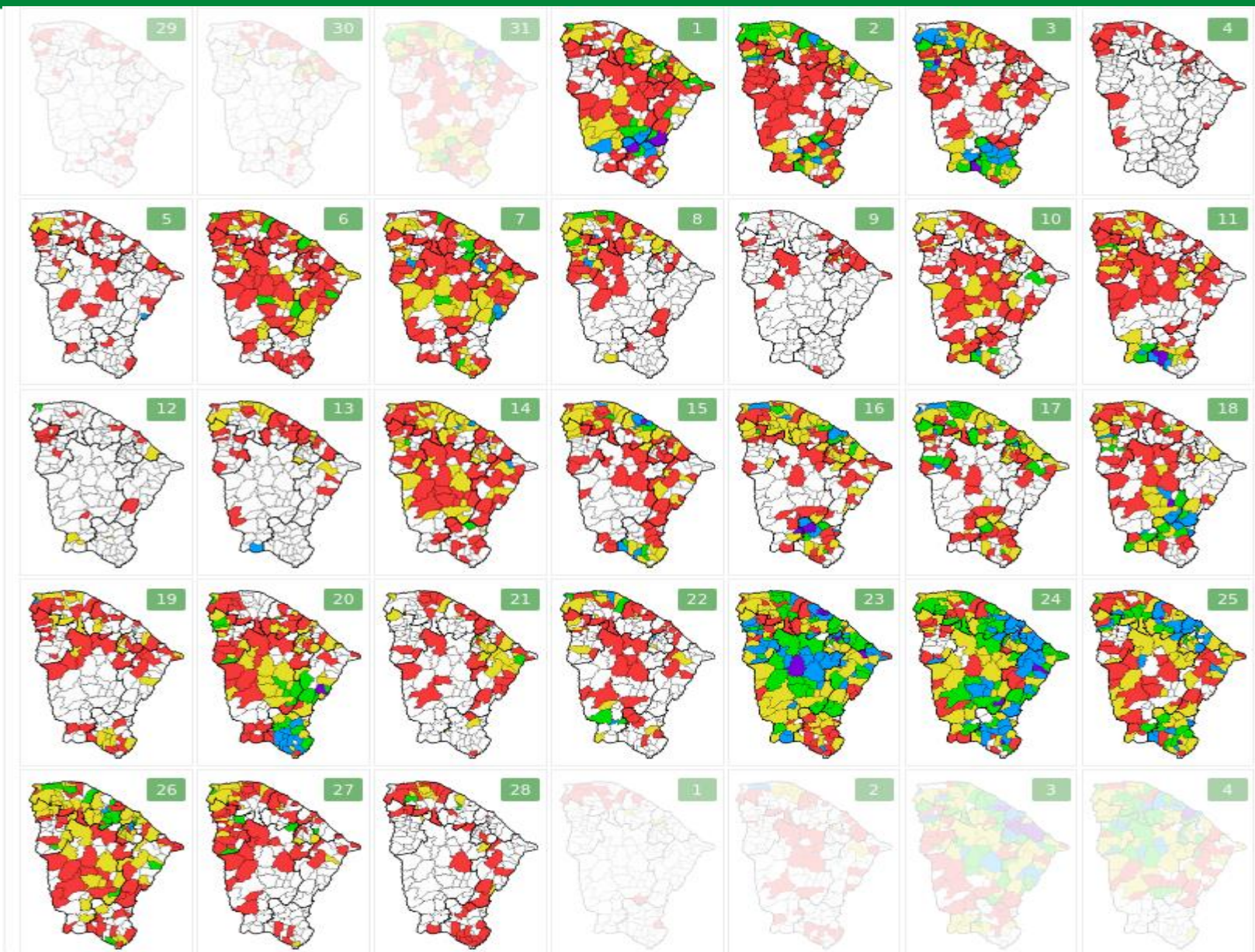
Precipitação acumulada - Regiões Hidrográficas

Quadro 1 - Limites da categoria normal climatológica, precipitação observada e desvios para o estado do Ceará nos trimestres e quadra chuvosa (Base de cálculo da normal climatológica:1981-2010: Referência para o Sistema de Modelagem)

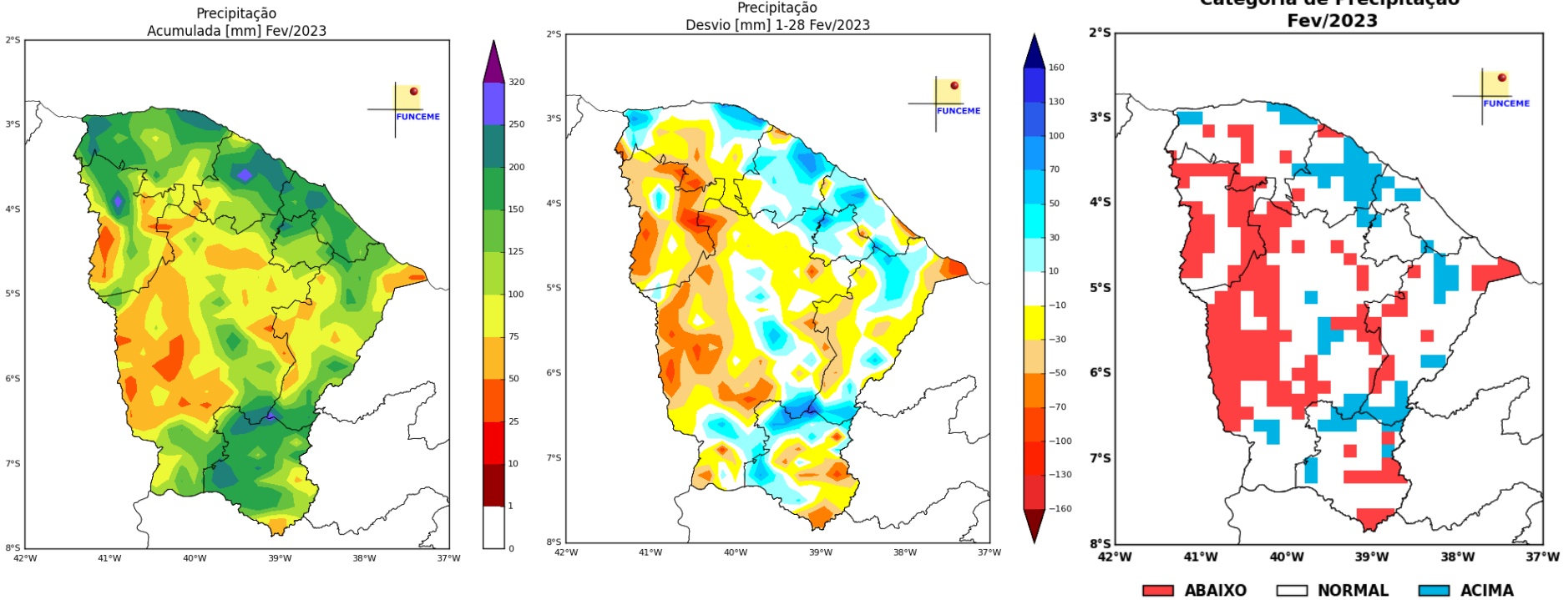
Trimestre e Quadra	Precipitação no Ceará				
	Categoria Normal			Observado (mm)	Desvio (%)
	Lim. Inferior	Normal	Lim. Superior		
fevereiro, março e abril	440,7	510,1	598,8	597,3	17,1
março, abril e maio	403,9	482,0	574,6	528,5	9,6
fevereiro, março, abril e maio	514,1	600,7	797,6	643,2	7,1

FEVEREIRO - 2023

Monitoramento de Precipitação – FEVEREIRO/2023



Monitoramento de Precipitação – Fevereiro/2023



Normal (mm)

Observado (mm)

Desvio (%)

Categoria

118.6

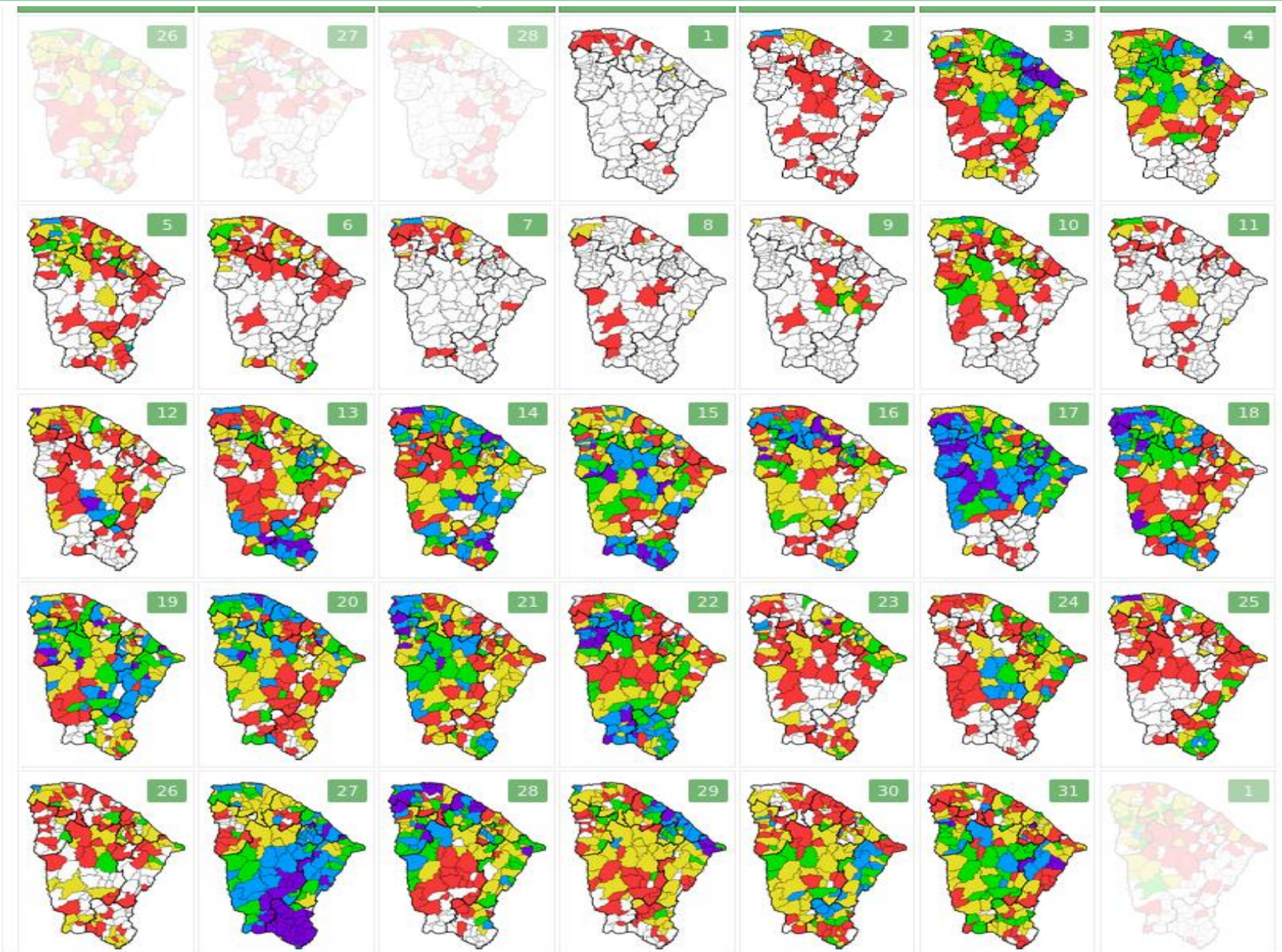
114.7

-3.3



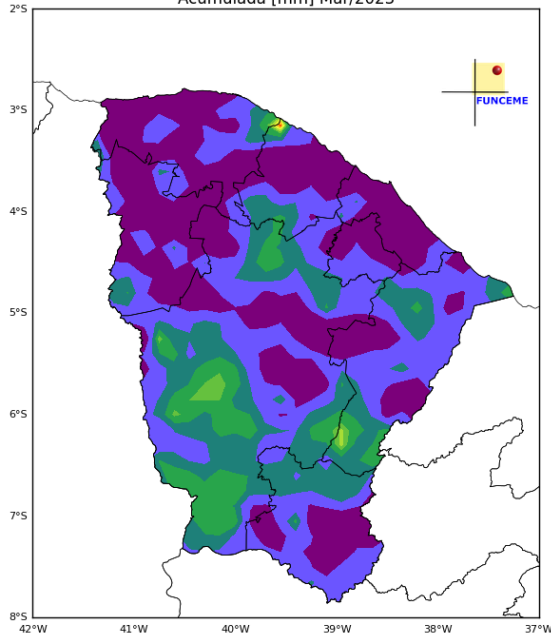
MARÇO - 2023

Monitoramento de Precipitação – MARÇO/2023

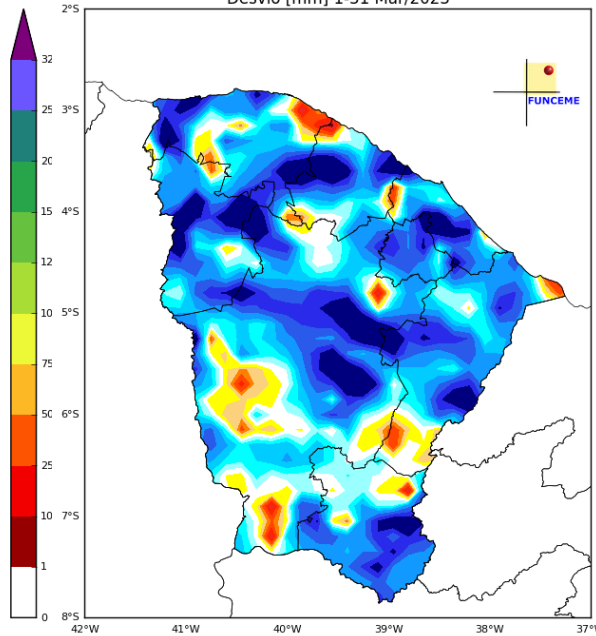


Monitoramento de Precipitação – MARÇO/2023

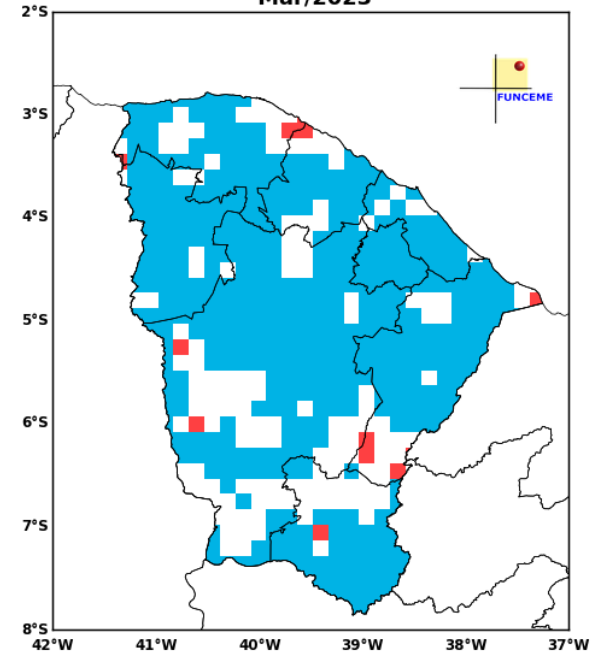
Precipitação Acumulada [mm] Mar/2023



Precipitação Desvio [mm] 1-31 Mar/2023



Categoria de Precipitação Mar/2023



ABAIXO NORMAL ACIMA

Ceará

Normal (mm)

Observado (mm)

Desvio (%)

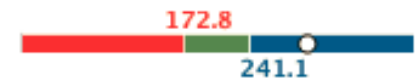
Categoria

Estado do Ceará

203.4

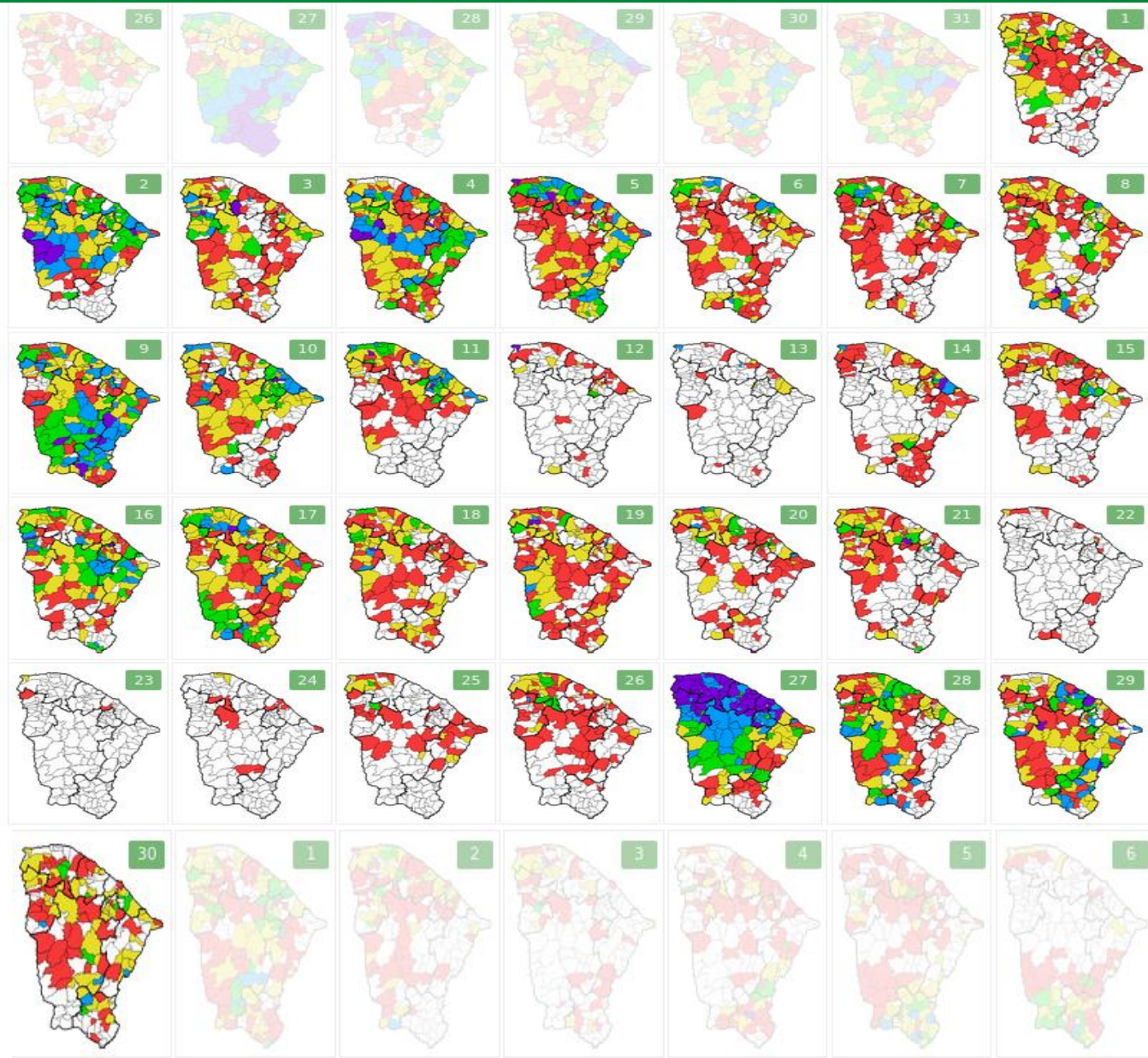
300.3

47.6

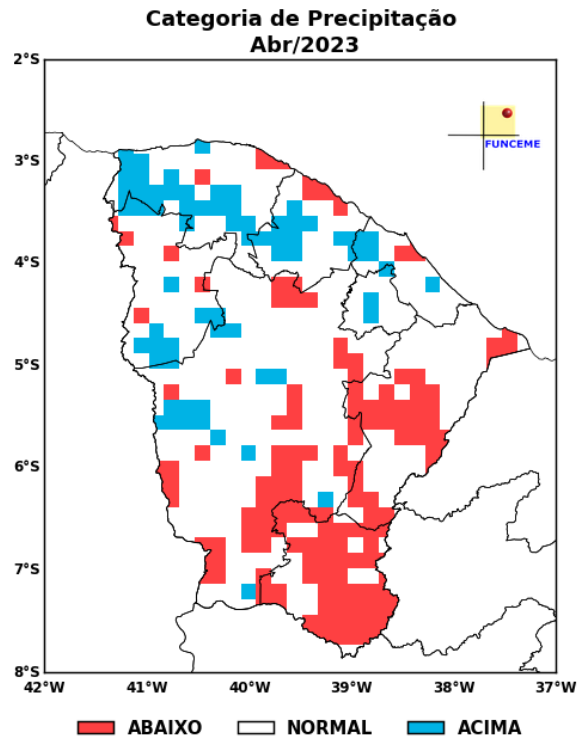
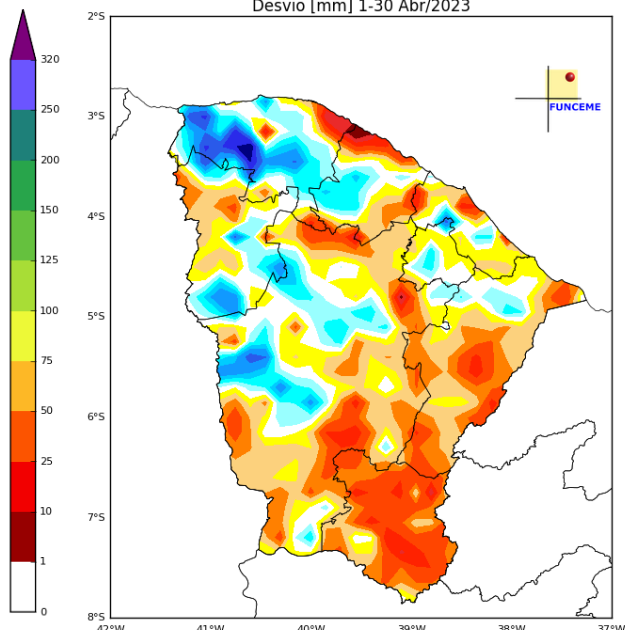
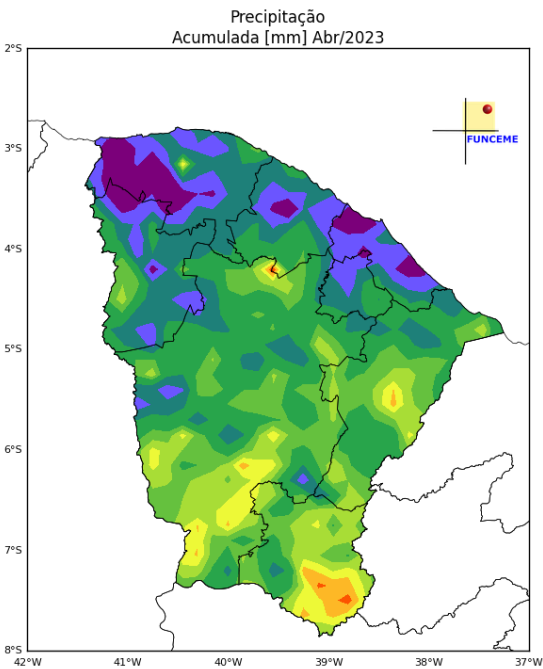


ABRIL - 2023

Monitoramento de Precipitação – ABRIL/2023



Monitoramento de Precipitação – ABRIL/2023



Ceará

Normal (mm)

Observado (mm)

Desvio (%)

Categoria

Estado do Ceará

188

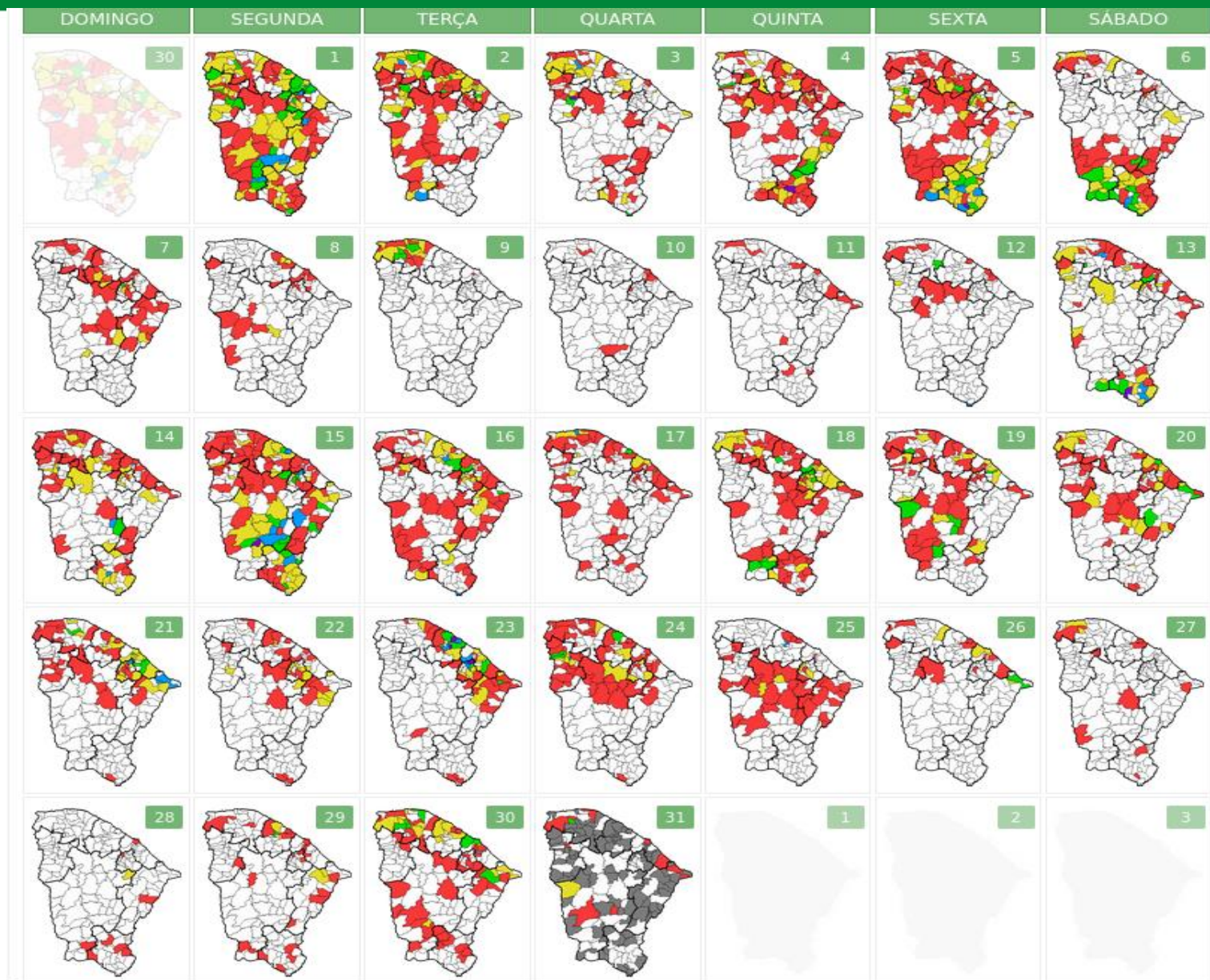
182.3

-3.1

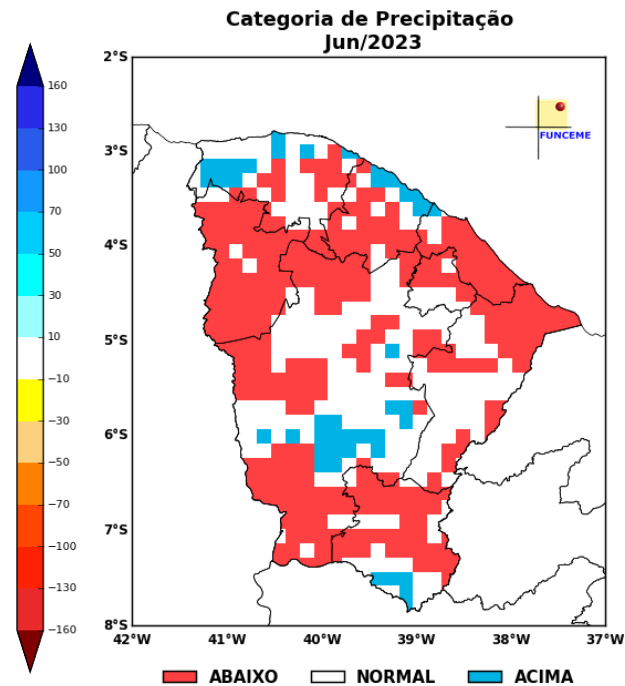
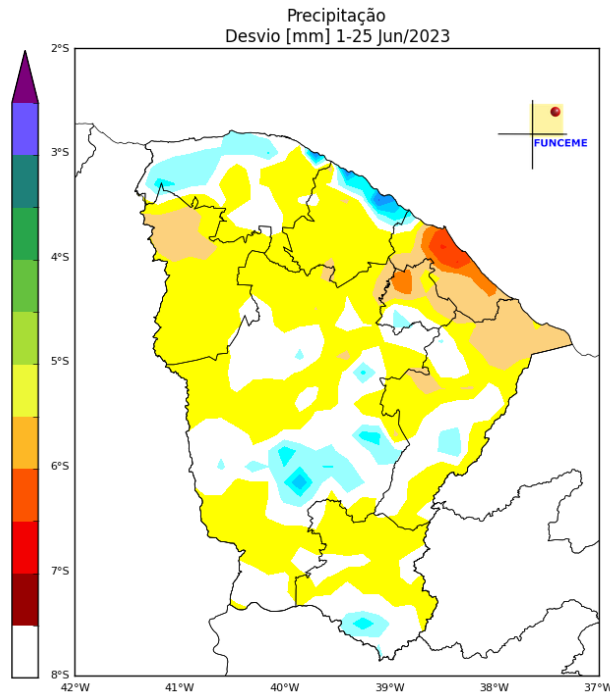
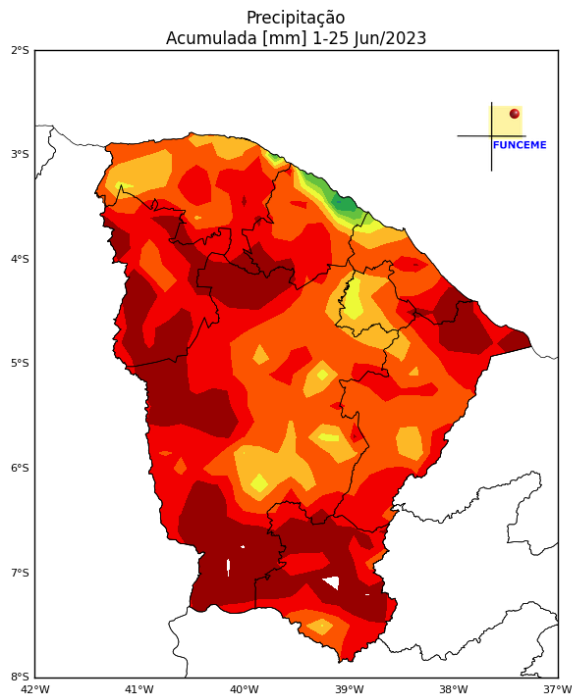


MAIO - 2023

Monitoramento de Precipitação – MAIO/2023



Monitoramento de Precipitação – MAIO/2023



Normal (mm)

Observado (mm)

Desvio (%)

Categoria

90.6

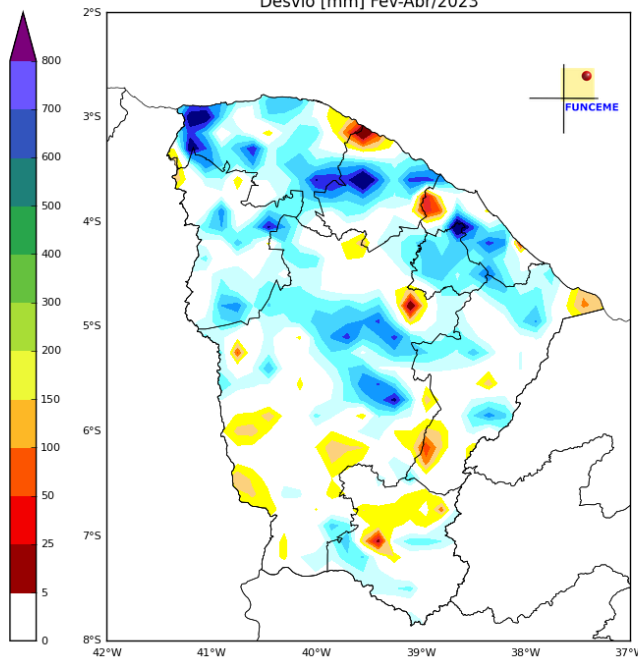
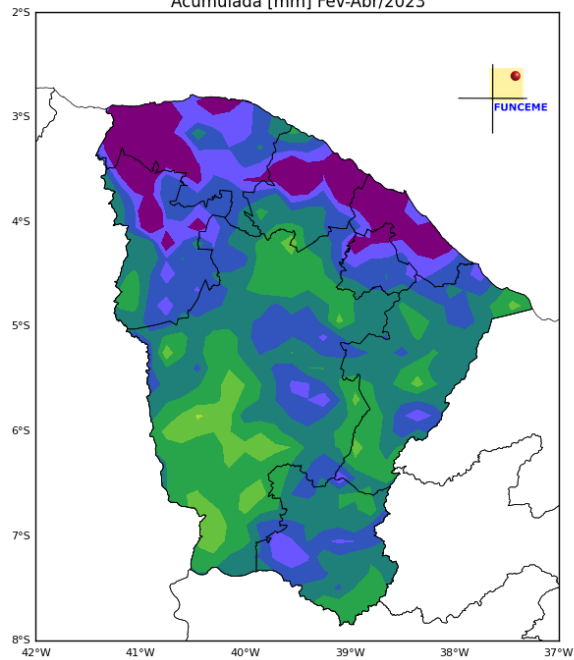
45.9

-49.3

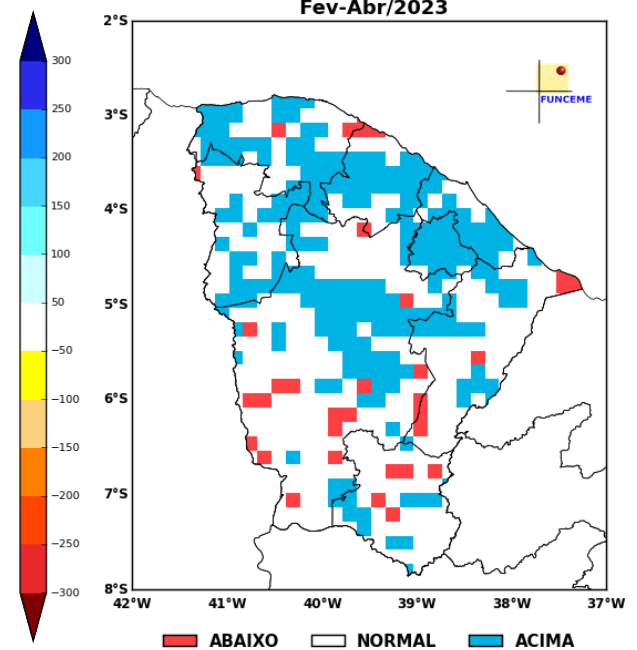


Monitoramento de Precipitação – FMA/2023

Precipitação
Acumulada [mm] Fev-Abr/2023



Categoria de Precipitação
Fev-Abr/2023



Normal (mm)

Observado (mm)

Desvio (%)

Categoria

510.1

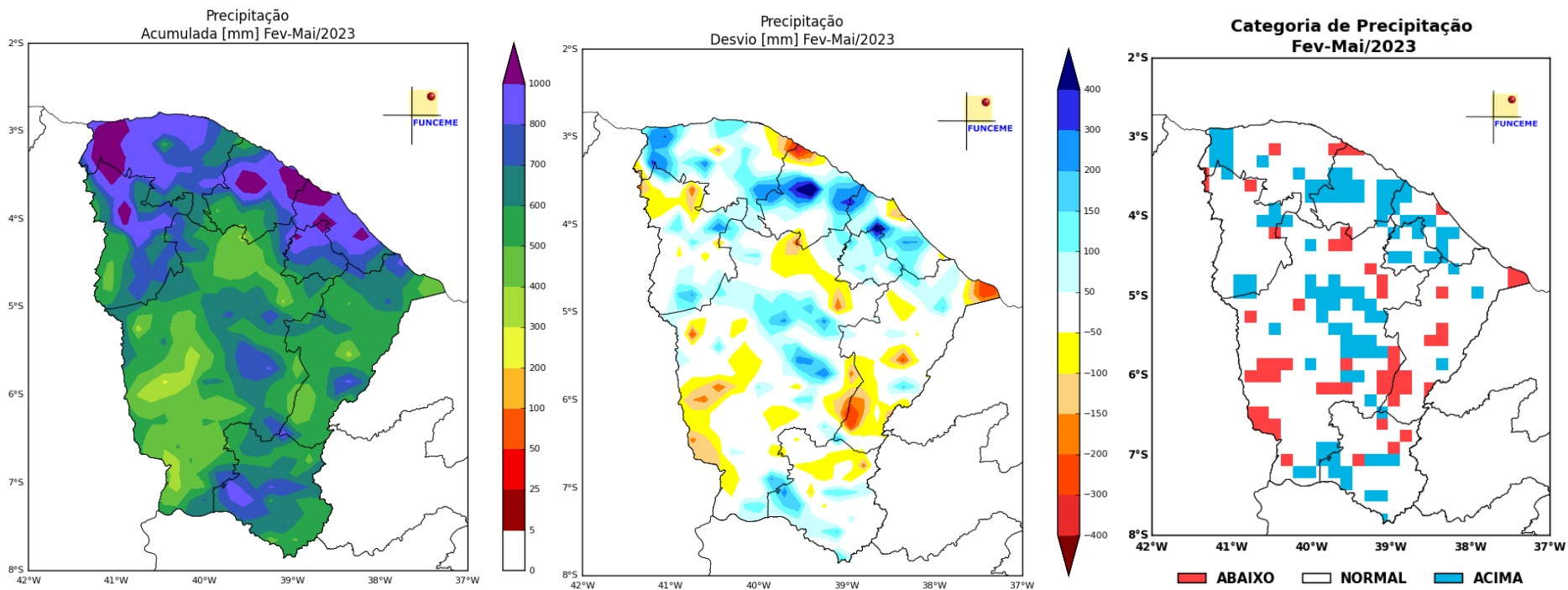
597.3

17.1



FMAM - 2023

Monitoramento de Precipitação – FMAM/2023



Normal (mm)

Observado (mm)

Desvio (%)

Categoria

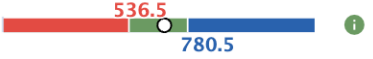
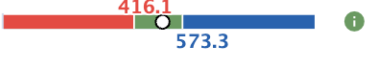


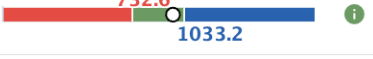







600.7

643.2

7.1

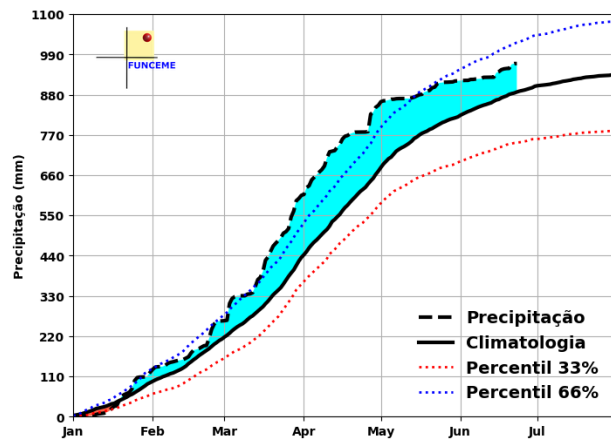


Precipitação acumulada - Regiões Hidrográficas – FMAM/2023

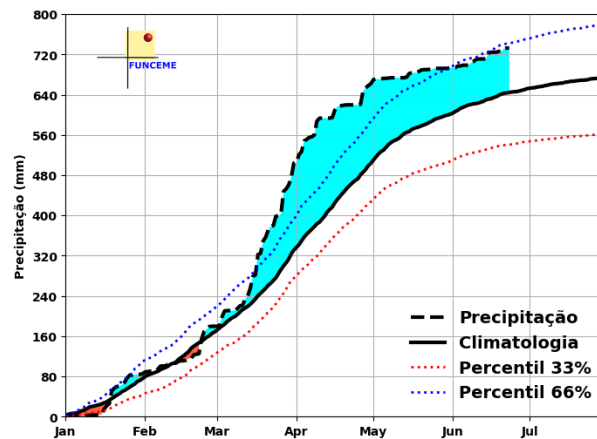
Região hidrográfica	Normal (mm)	Observado (mm)	Desvio (%)	Categoria
Acaraú	658.5	682.1	3.6	 536.5 780.5
Alto Jaguaribe	494.7	507.9	2.7	 416.1 573.3
Baixo Jaguaribe	586.4	577	-1.6	 469.9 702.8
Banabuiú	524.9	608	15.8	 441.2 608.6
Coreaú	882.9	959.1	8.6	 732.6 1033.2
Curu	577.9	606.3	4.9	 473.2 682.5
Litoral	710.6	767.6	8	 583.9 837.4
Médio Jaguaribe	598.7	551.9	-7.8	 498.8 698.6
Metropolitana	728.3	797	9.4	 614.1 842.5
Salgado	601.8	622.2	3.4	 520.8 682.8
Serra da Ibiapaba	588.7	594	0.9	 481.6 695.8
Sertões de Crateús	494.3	526.2	6.5	 398.4 590.3

Monitoramento de Precipitação Regiões Hidrográficas

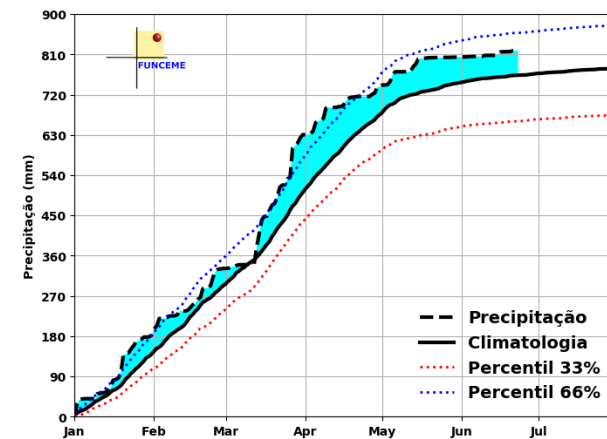
Metropolitana
Precipitação acumulada de 01/Jan - 23/Jun/2023



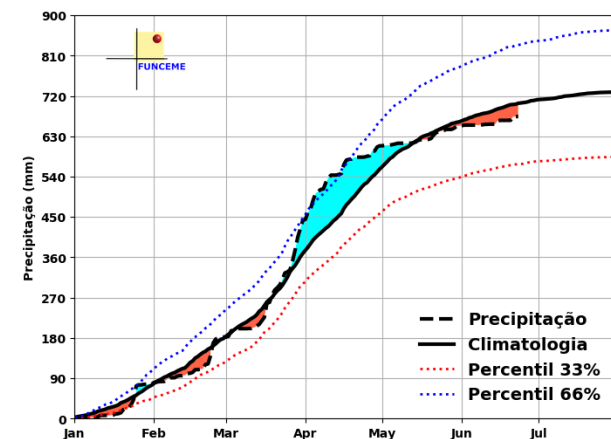
Banabuiú
Precipitação acumulada de 01/Jan - 23/Jun/2023



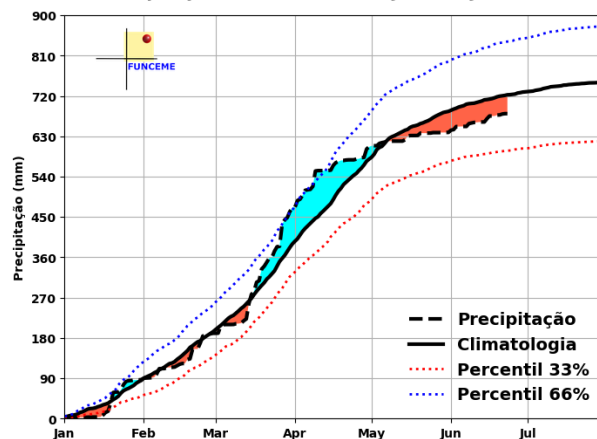
Salgado
Precipitação acumulada de 01/Jan - 23/Jun/2023



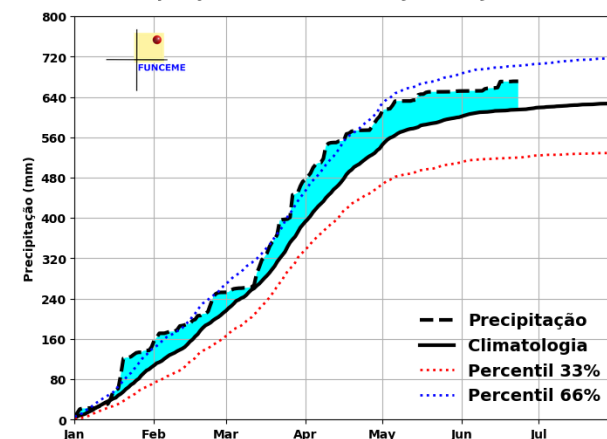
Baixo Jaguaribe
Precipitação acumulada de 01/Jan - 23/Jun/2023



Médio Jaguaribe
Precipitação acumulada de 01/Jan - 23/Jun/2023

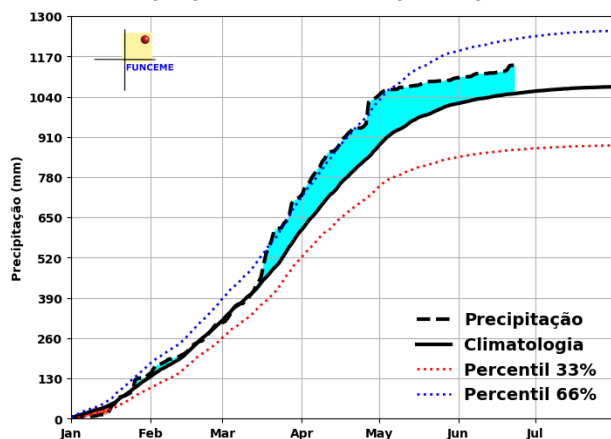


Alto Jaguaribe
Precipitação acumulada de 01/Jan - 23/Jun/2023

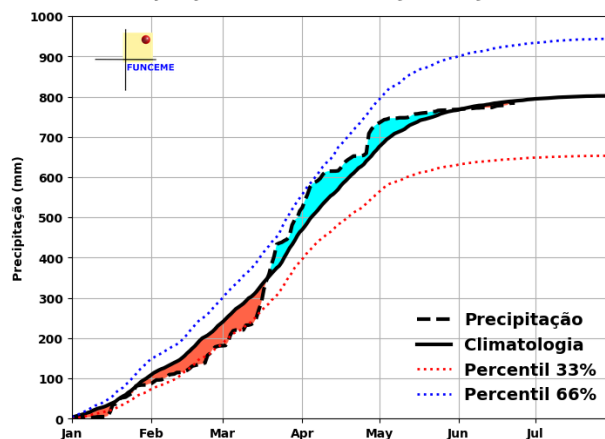


Monitoramento de Precipitação Regiões Hidrográficas

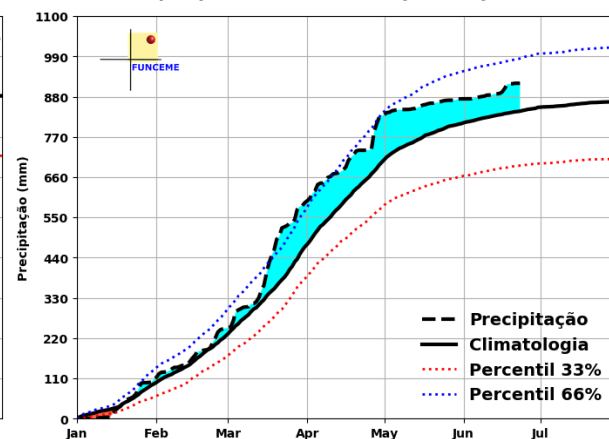
Coreau
Precipitação acumulada de 01/Jan - 23/Jun/2023



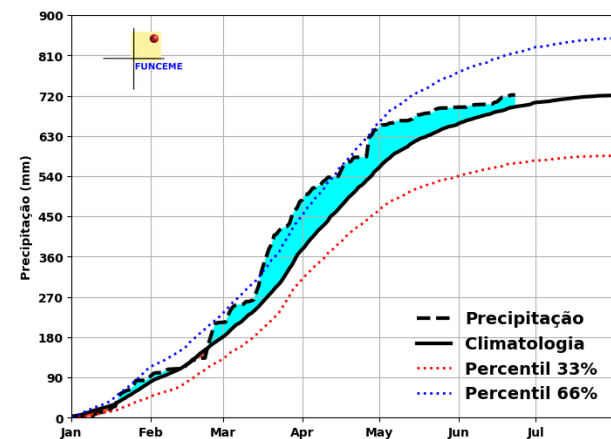
Acaraú
Precipitação acumulada de 01/Jan - 23/Jun/2023



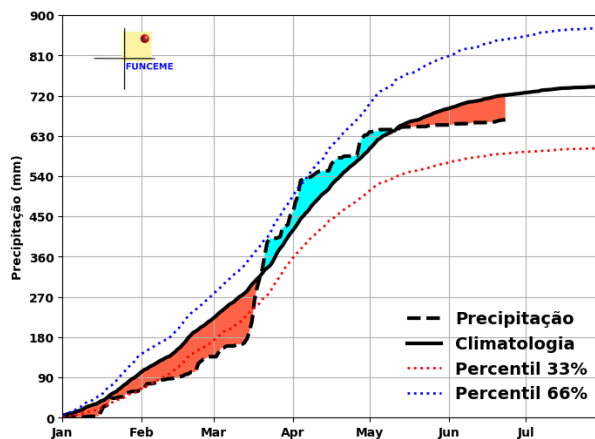
Litoral
Precipitação acumulada de 01/Jan - 23/Jun/2023



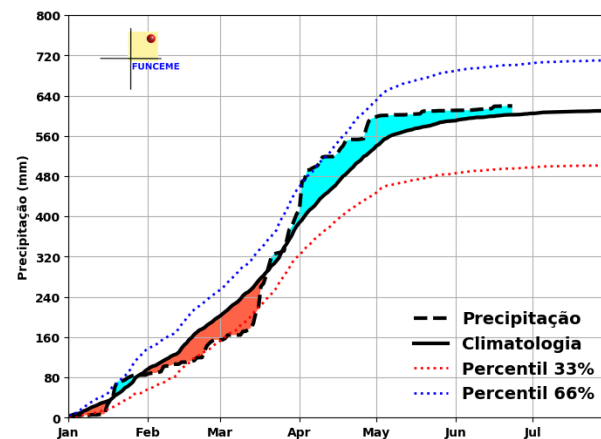
Curu
Precipitação acumulada de 01/Jan - 23/Jun/2023



Serra da Ibiapaba
Precipitação acumulada de 01/Jan - 23/Jun/2023

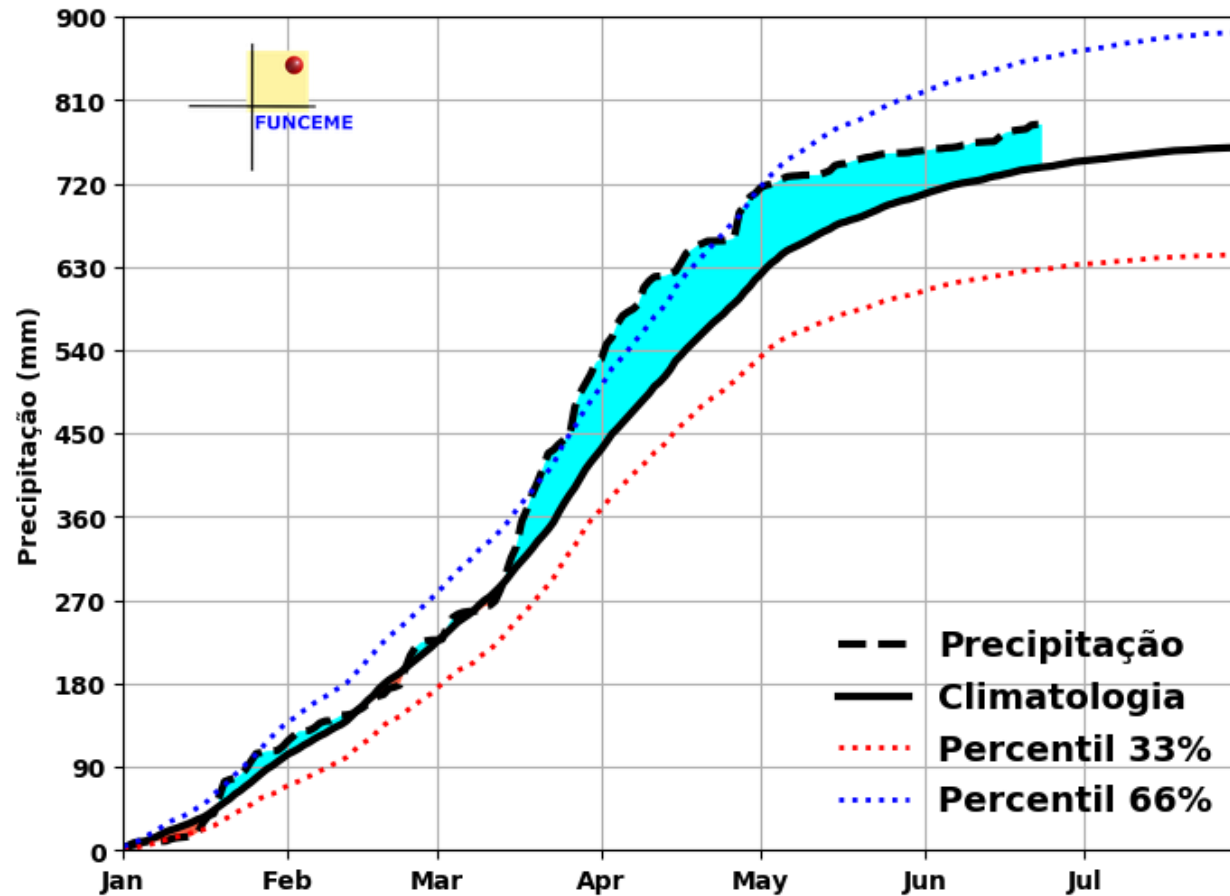


Sertões do Cratéus
Precipitação acumulada de 01/Jan - 23/Jun/2023



Monitoramento de Precipitação Regiões Hidrográficas

Ceará
Precipitação acumulada de 01/Jan - 23/Jun/2023



APORTE - 2023

Monitoramento do Aporte - 2023

RESENHA DIÁRIA DO MONITORAMENTO

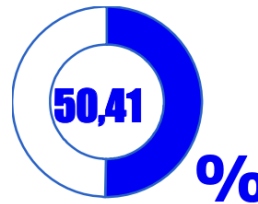
23/06/2023

SITUAÇÃO ATUAL

157
açudes
monitorados

18,6 bi
m³
capacidade

9,36 bi
m³
V. atual



7,04 bi
m³
aporte 2023
(Não incluso RMF)
até julho

7,8 bi
m³
v. aporte 24h

Estado 51,1%

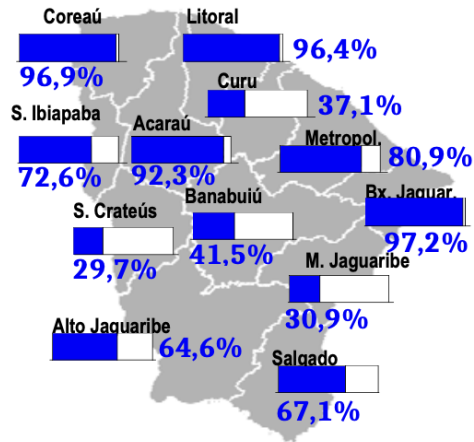
48 acima
açudes
90%

Acará Mirim, Amanary, Angicos, Araras, Arneiroz II, Arrebita, Ayres de Sousa, Batente, Cachoeira, Caldeirões, Carão, Catucinzenta, Cauhipe, Curral Velho, Desterro, Diamante, Do Batalhão, Do Coronel, Forquilha, Gameleira, Gerardo Atimbone, Jatobá, Jatobá II, Jenipapeiro, Macacos, Mamoeiro, Missi, Mundaú, Muquém, Olho d'Água, Pau Preto, Poço Verde, Quincoé,

34 abaixo
açudes
30%

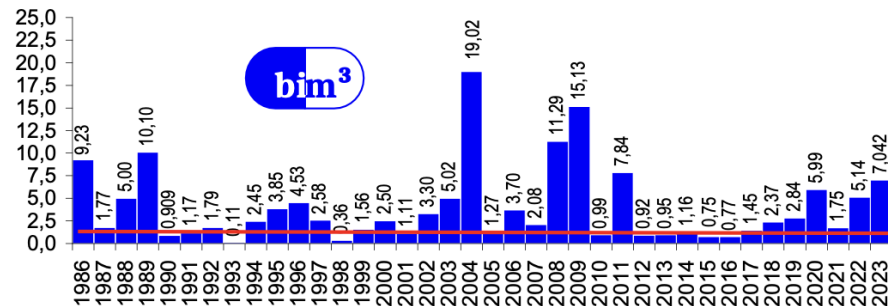
sendo sangrando)

VOLUME ARMAZENADO



DESTAQUES

EVOLUÇÃO APORTE*

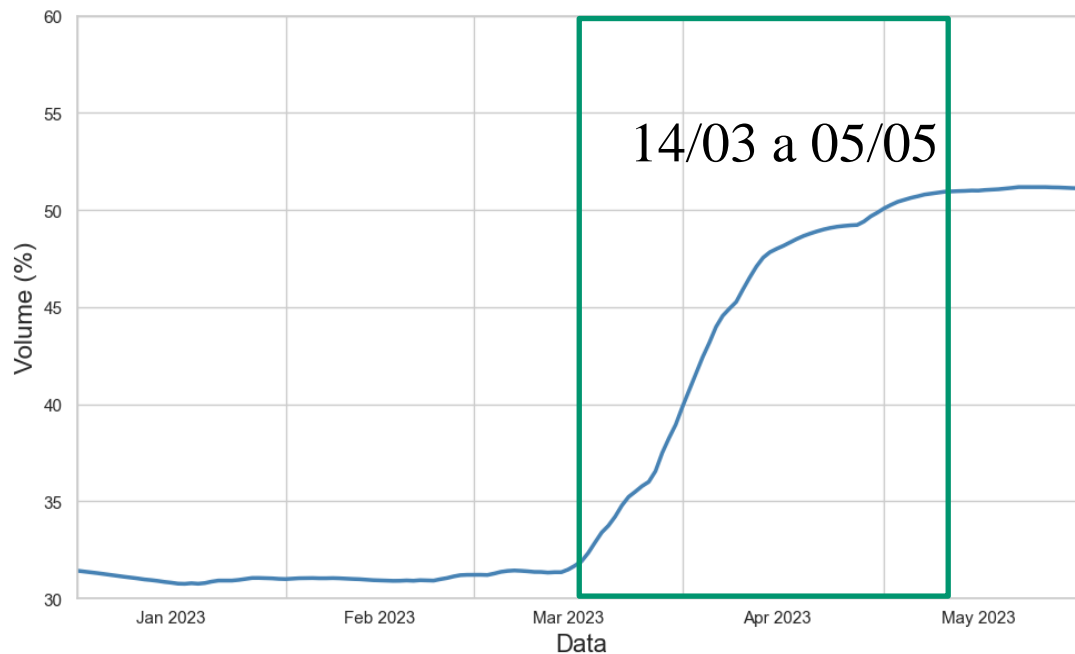


2023: dados parciais

média: 3,82 bi; mediana: 2,23 bi m³ [1986-2023]

Monitoramento do Aporte - 2023

Volume percentual diário



PRECIPITAÇÃO/APORTE

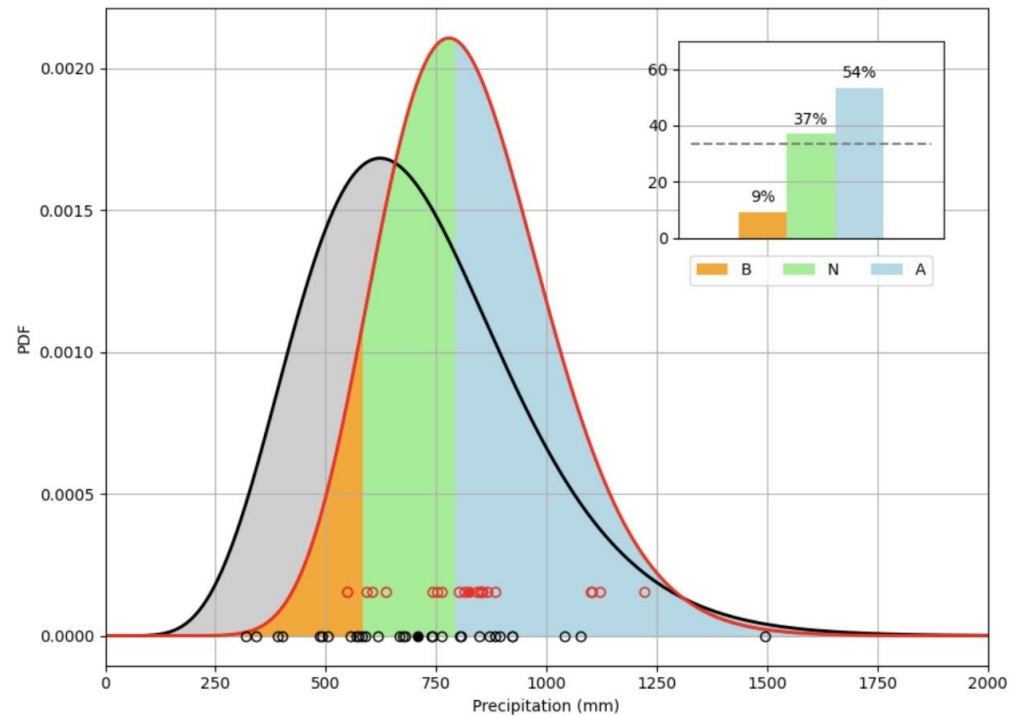
Observação/Previsão JFMAM – ECHAM4.6

Normal (mm)	Observado (mm)	Desvio (%)
800.6	755.4	-5.7

Categoria



Precipitação

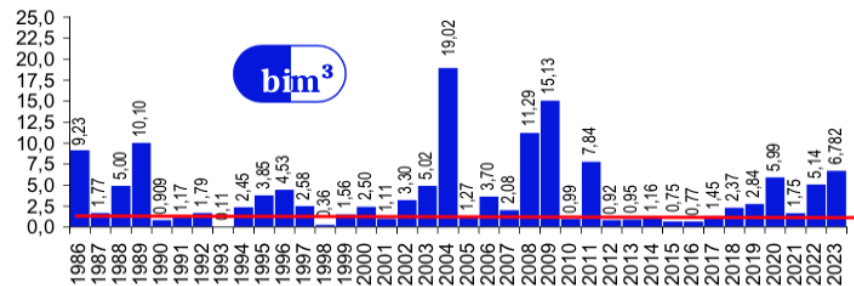


PRECIPITAÇÃO/APORTE

Observação/Previsão JFMAM – ECHAM4.6

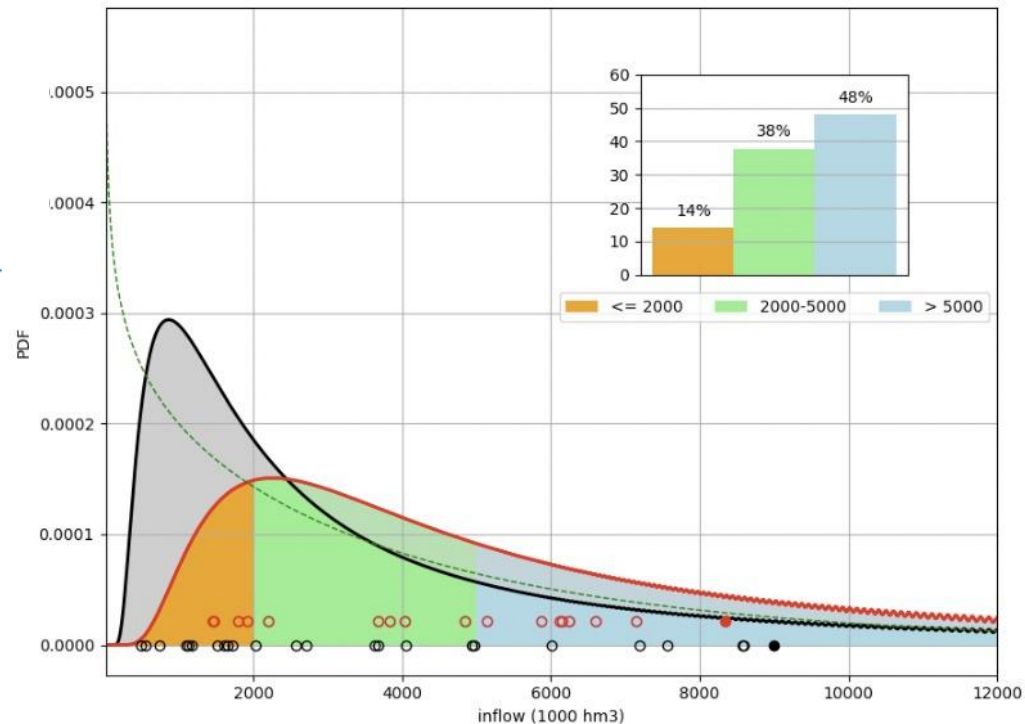
Vazão

EVOLUÇÃO APORTE*



2023: dados parciais

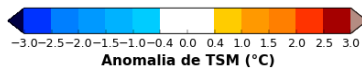
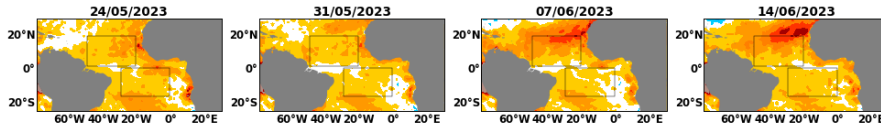
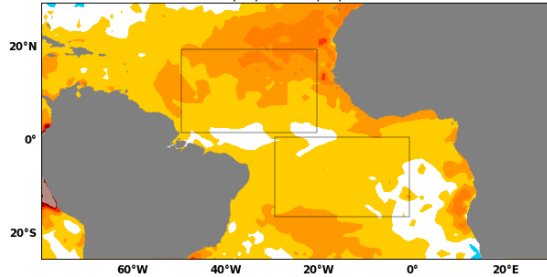
média: 3,82 bi; mediana: 2,23 bi m³ [1986-2023]



TENDÊNCIAS – Final 2023 / Início 2024

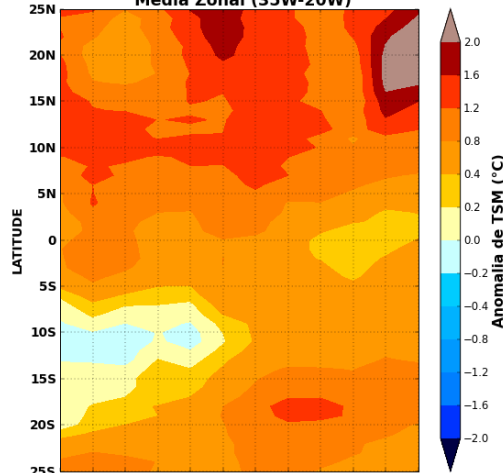
Evolução da Temperatura da Superfície do Mar

Média da Anomalia de TSM das últimas quatro semanas
24/05/2023:14/06/2023



Referência: 1991-2020
Fonte: NOAA/OAR/ESRL PSD
Elaboração: FUNCEME

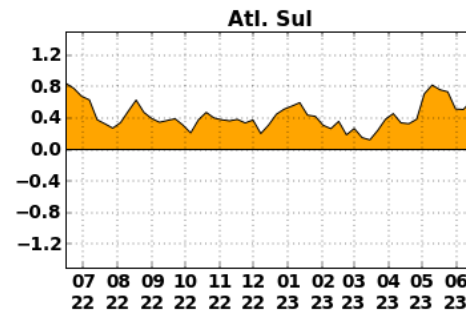
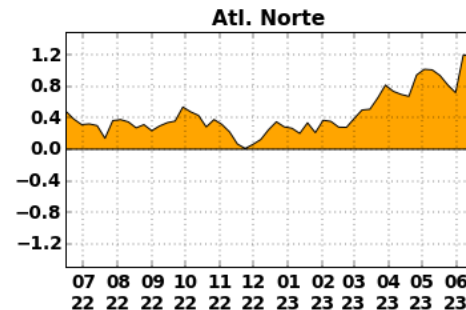
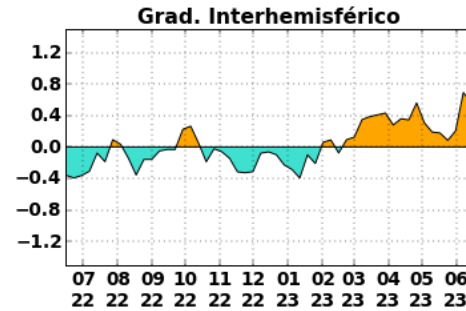
Evolução da Anomalia de TSM
Média Zonal (35W-20W)



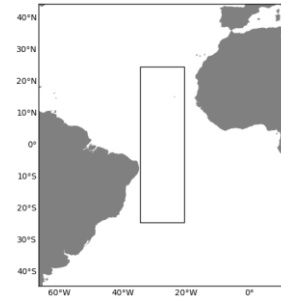
29/03 05/04 12/04 19/04 26/04 03/05 10/05 17/05 24/05 31/05 07/06 14/06
2023 2023 2023 2023 2023 2023 2023 2023 2023 2023 2023 2023

Referência: 1991-2020
Fonte: NOAA/OAR/ESRL PSD
Elaboração: FUNCEME

Anomalia de TSM mensal do Atlântico Tropical

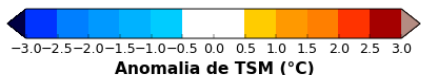
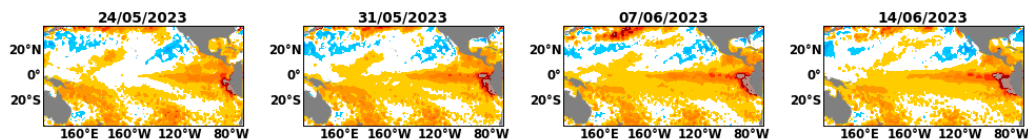
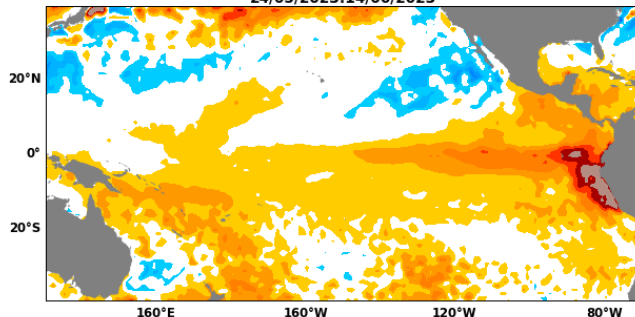


Referência: 1991-2020
Fonte: NOAA/OAR/ESRL PSD
Elaboração: FUNCEME



Evolução da Temperatura da Superfície do Mar

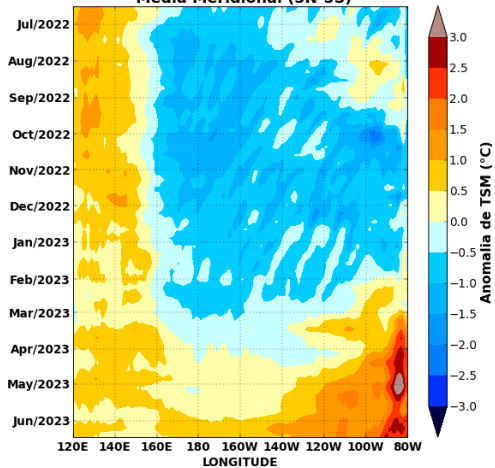
Média da Anomalia de TSM das últimas quatro semanas
24/05/2023:14/06/2023



Anomalia de TSM (°C)

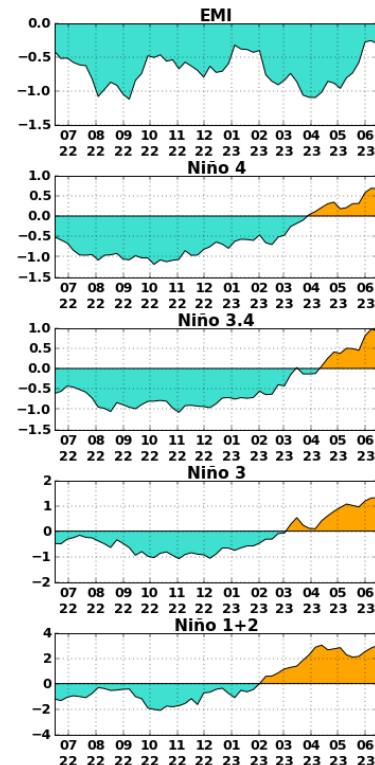
Referência: 1991-2020
Fonte: NOAA/OAR/ESRL PSD
Elaboração: FUNCEME

Evolução da Anomalia de TSM
Média Meridional (5N-5S)



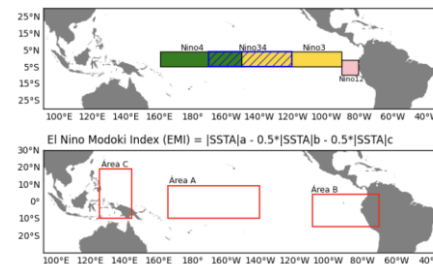
Referência: 1991-2020
Fonte: NOAA/OAR/ESRL PSD
Elaboração: FUNCEME

Anomalia de TSM semanal do Pacífico Tropical



Referência: 1991-2020
Fonte: NOAA/OAR/ESRL PSD
Elaboração: FUNCEME

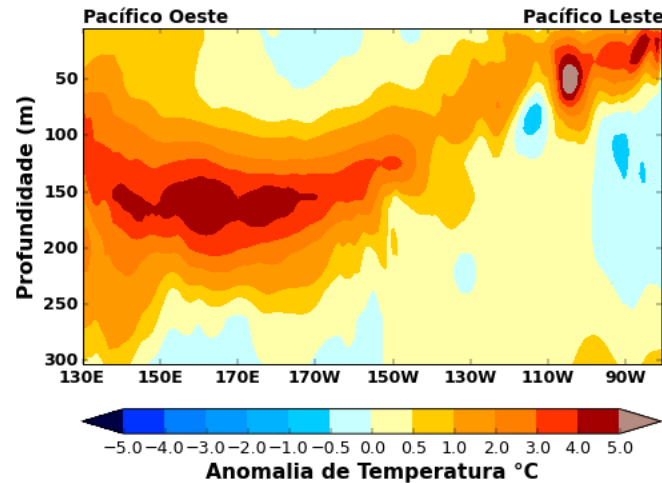
Índices	Média das últimas quatro semanas
Niño 1+2	2.6
Niño 3	1.2
Niño 3.4	0.8
Niño 4	0.6
EMI	-0.4



El Niño Modoki Index (EMI) = |SSTA|a - 0.5*|SSTA|b - 0.5*|SSTA|c

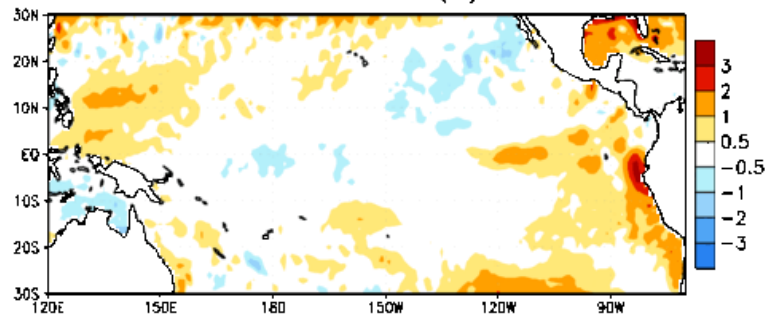
Evolução no Pacífico Equatorial – ENSO

Anomalia pentadal de temperatura de subsuperfície no Pacífico equatorial
Pentada centrada em 24/03/2023

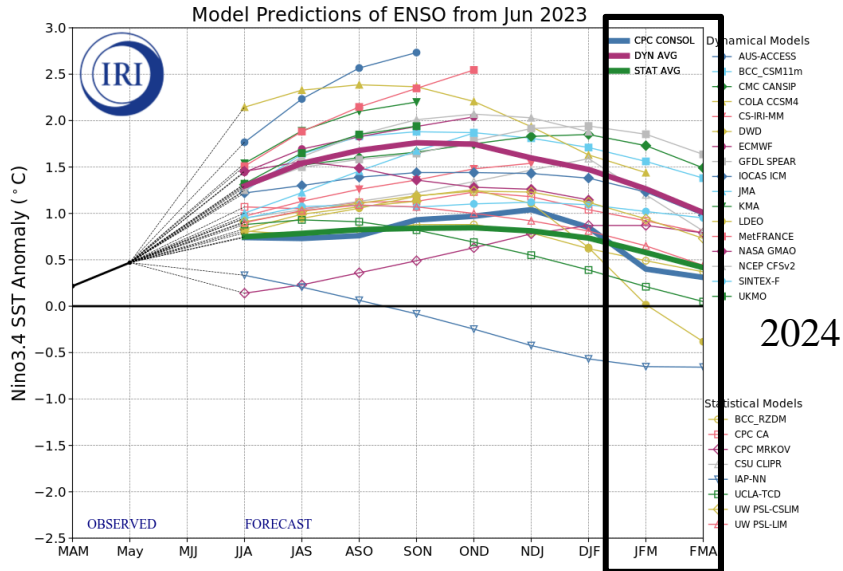


Fonte: NOAA/OAR/CPC
Elaboração: FUNCEME

Week centered on 08 MAR 2023
SST Anomalies (°C)

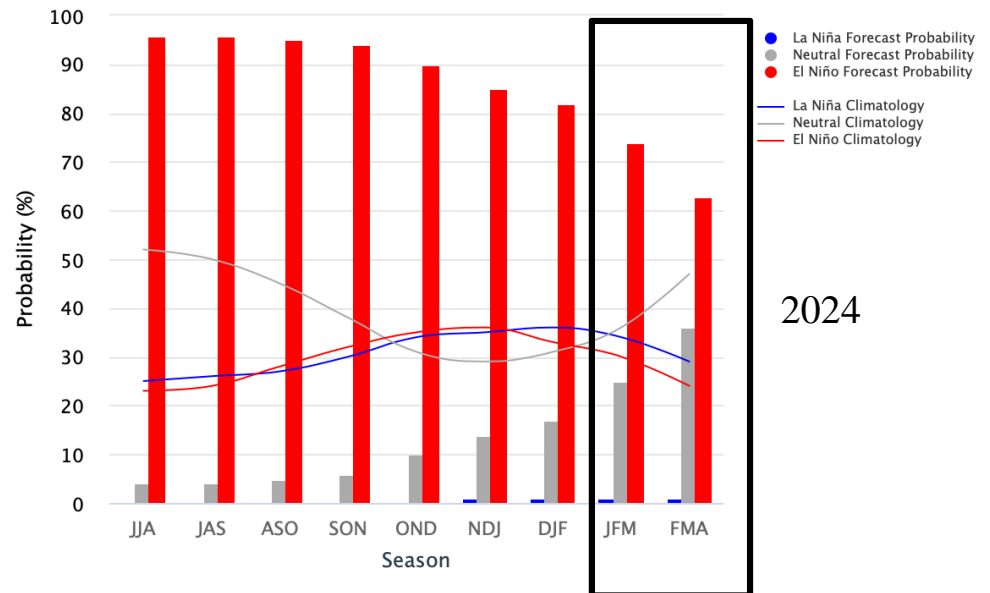


Previsão - Pacífico Equatorial - ENSO

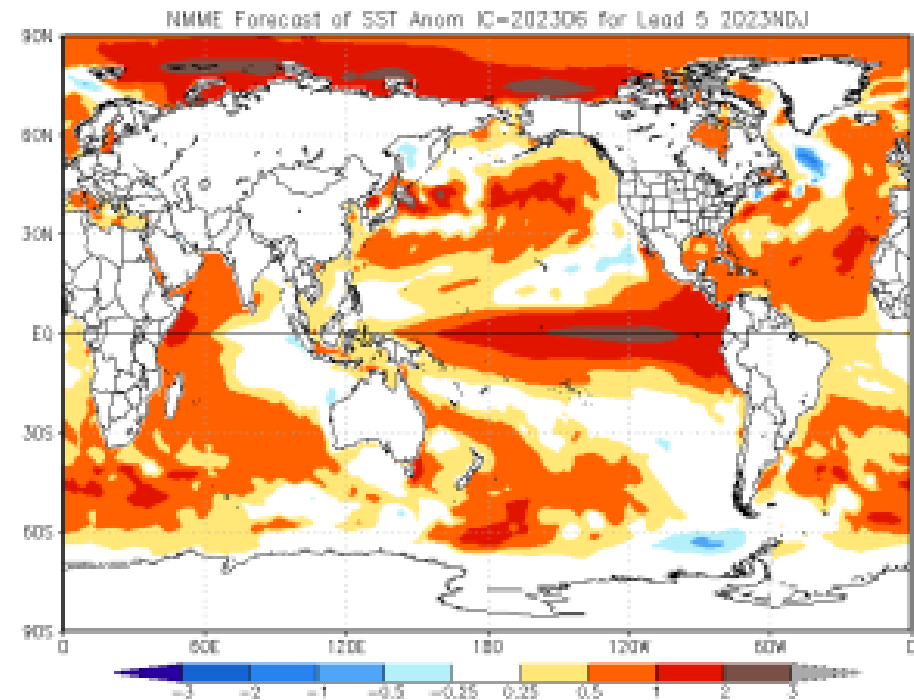
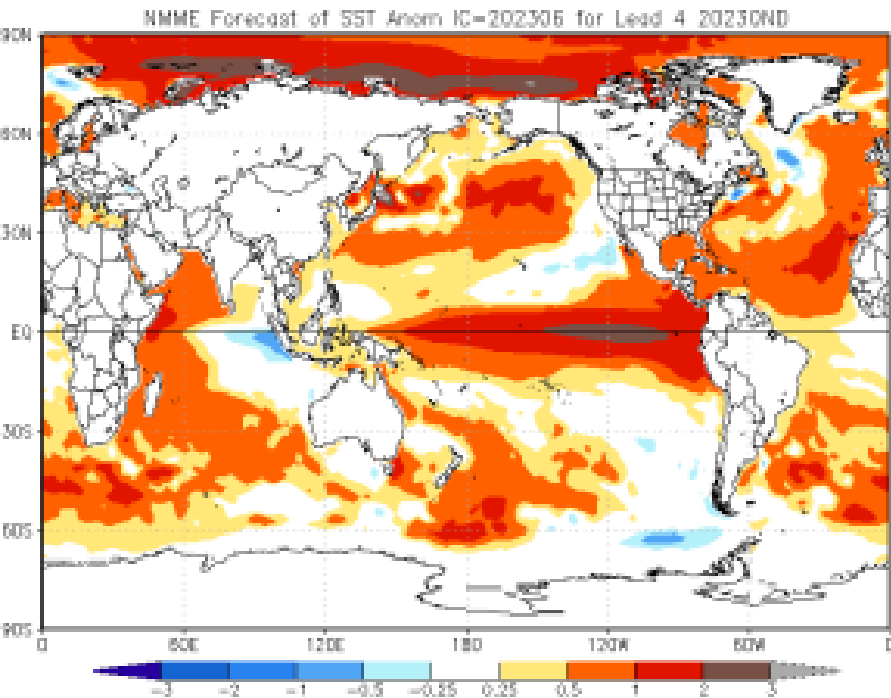


Mid-June 2023 IRI Model-Based Probabilistic ENSO Forecasts

ENSO state based on NINO3.4 SST Anomaly Neutral ENSO: $-0.5\text{ }^{\circ}\text{C}$ to $0.5\text{ }^{\circ}\text{C}$



Projeção Longo Prazo – Modelos Climáticos



Categoria de precipitação no período de Fevereiro a Maio

