

# Monitoramento da situação do El Niño na Região Nordeste

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JULHO/ 2023



MINISTÉRIO DA  
CIÊNCIA, TECNOLOGIA  
E INOVAÇÃO





Update prepared by:  
Climate Prediction Center / NCEP  
10 July 2023

ENSO Alert System Status: **El Niño Advisory**

**El Niño conditions are observed.\***

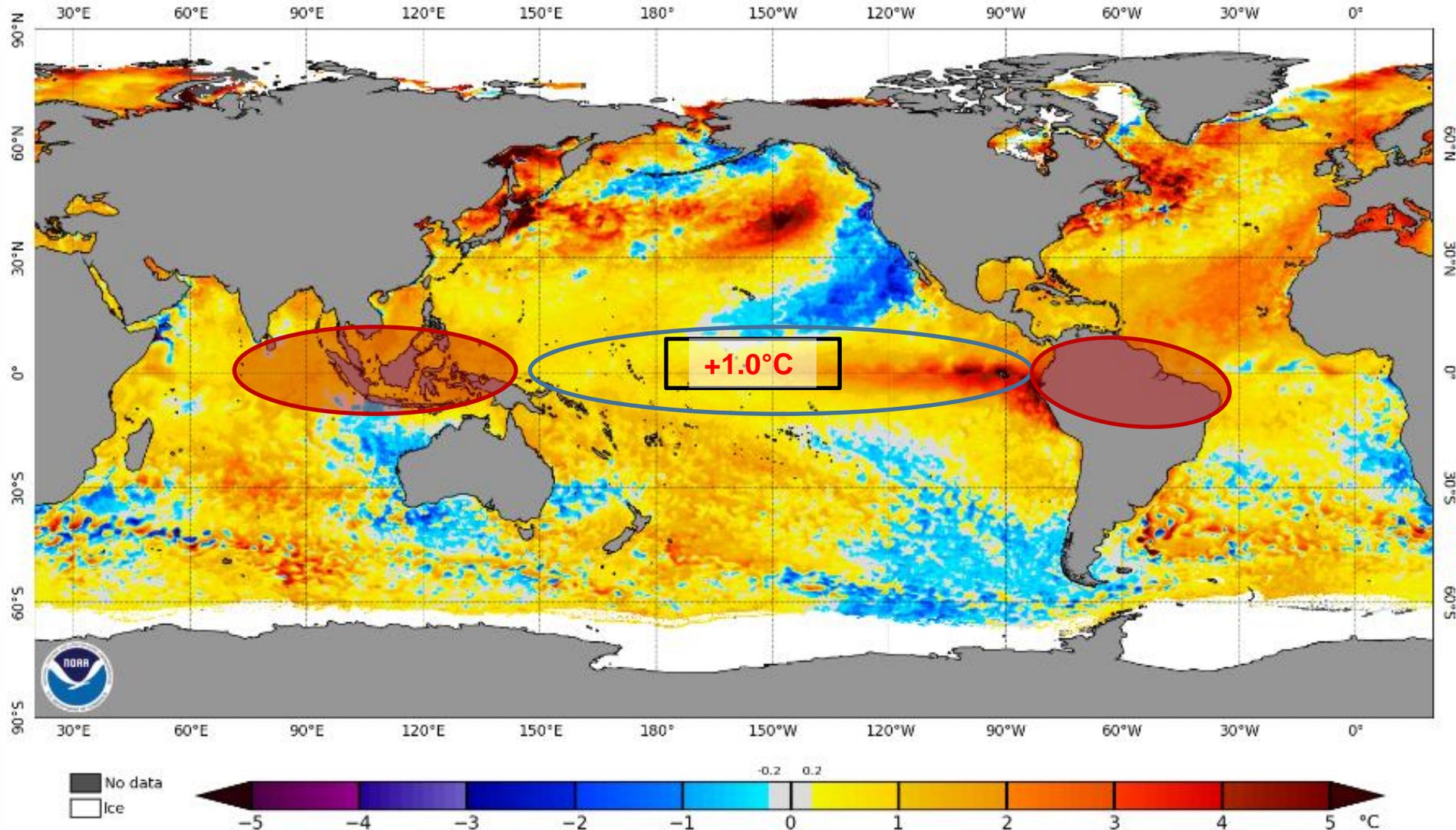
Equatorial sea surface temperatures (SSTs) are above average across the east-central and eastern Pacific Ocean.

The tropical Pacific atmospheric anomalies are consistent with weak El Niño conditions.

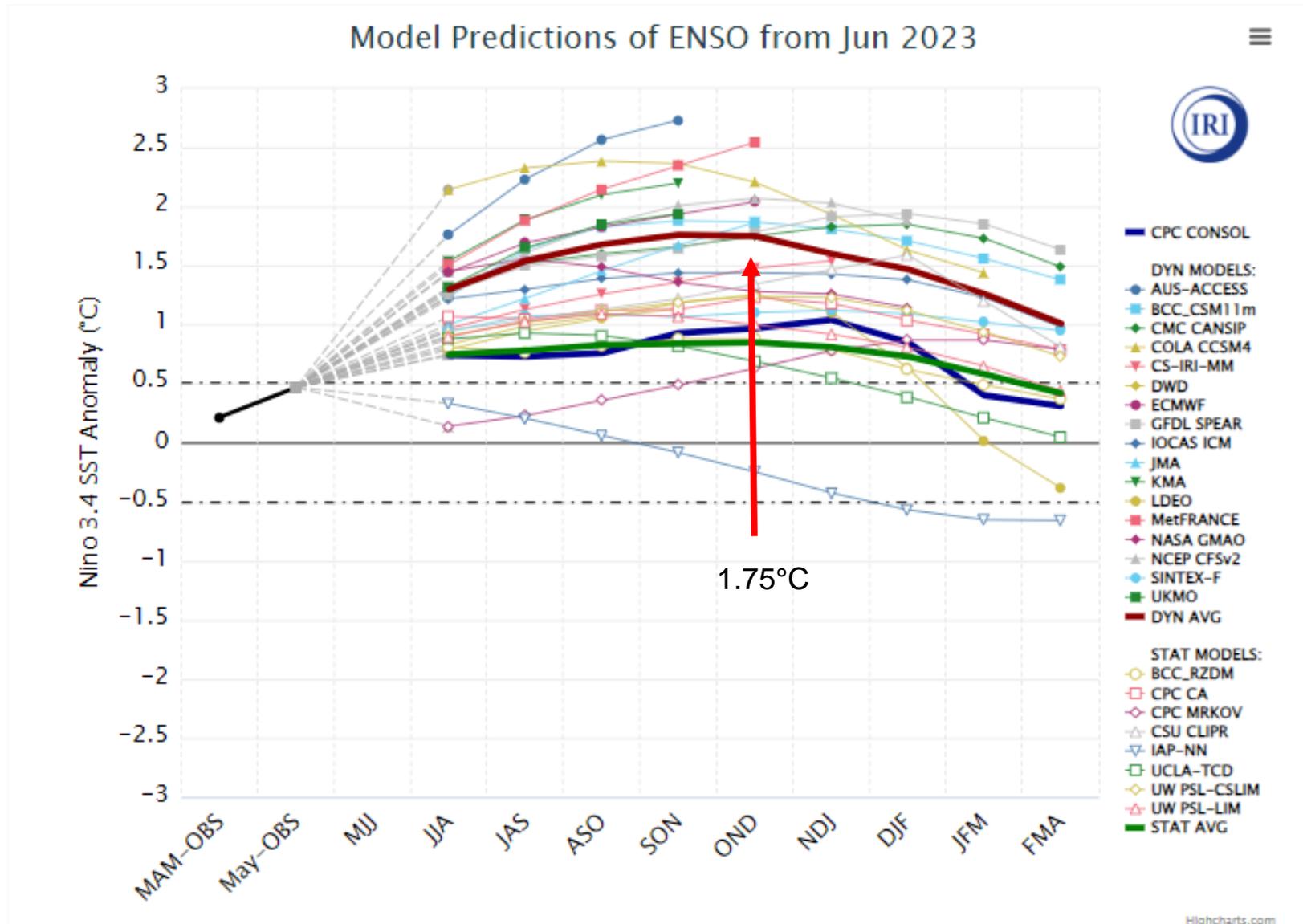
El Niño conditions are expected to gradually strengthen into the Northern Hemisphere winter 2023-24.\*

# Status Atual: El Niño

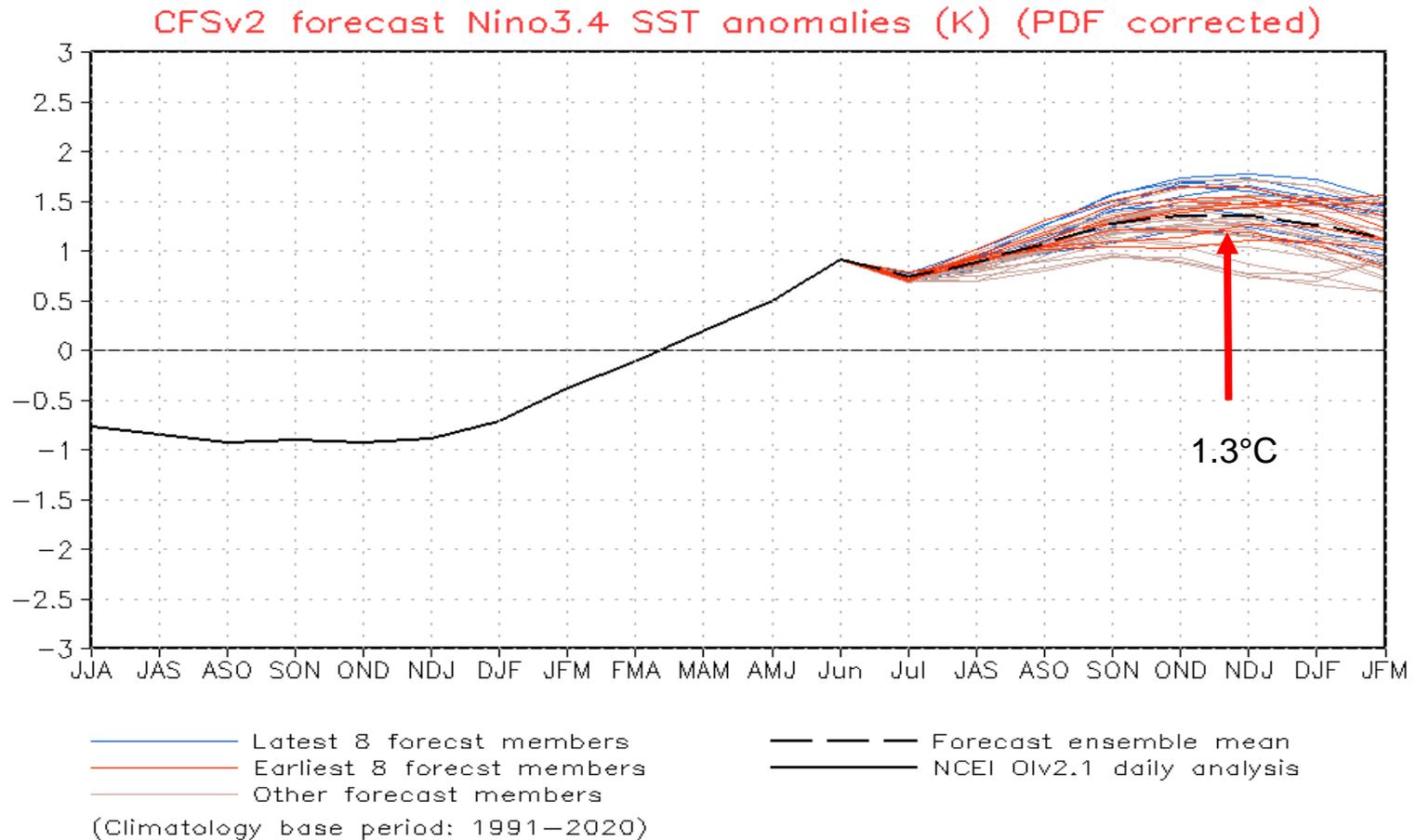
NOAA Coral Reef Watch Daily 5km SST Anomalies (v3.1) 11 Jul 2023



# Previsão do “ENSO”



# Previsão do “ENSO”

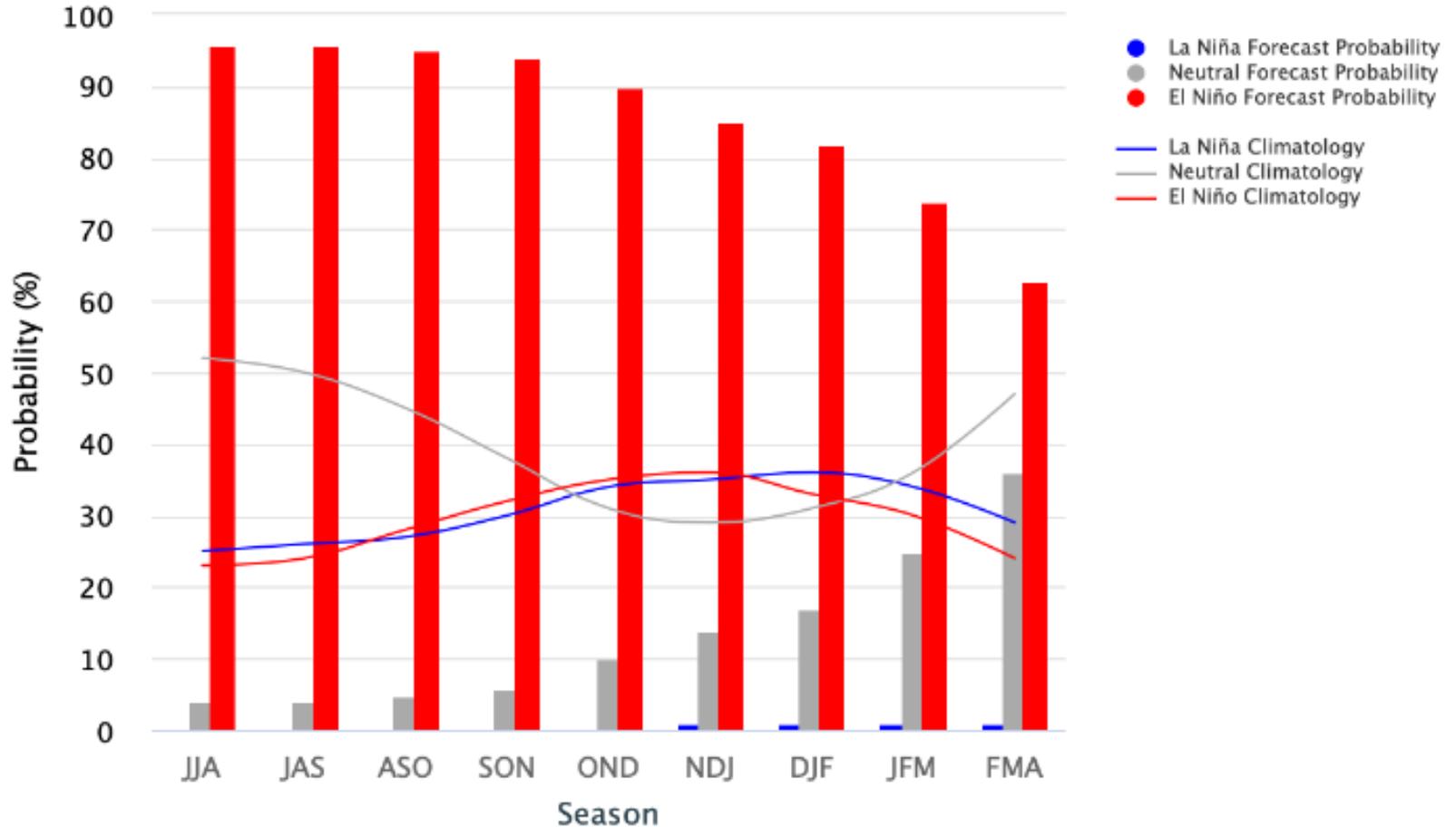


Atualizado: 10 de julho 2023

# Previsão do “ENSO”

## Mid-June 2023 IRI Model-Based Probabilistic ENSO Forecasts

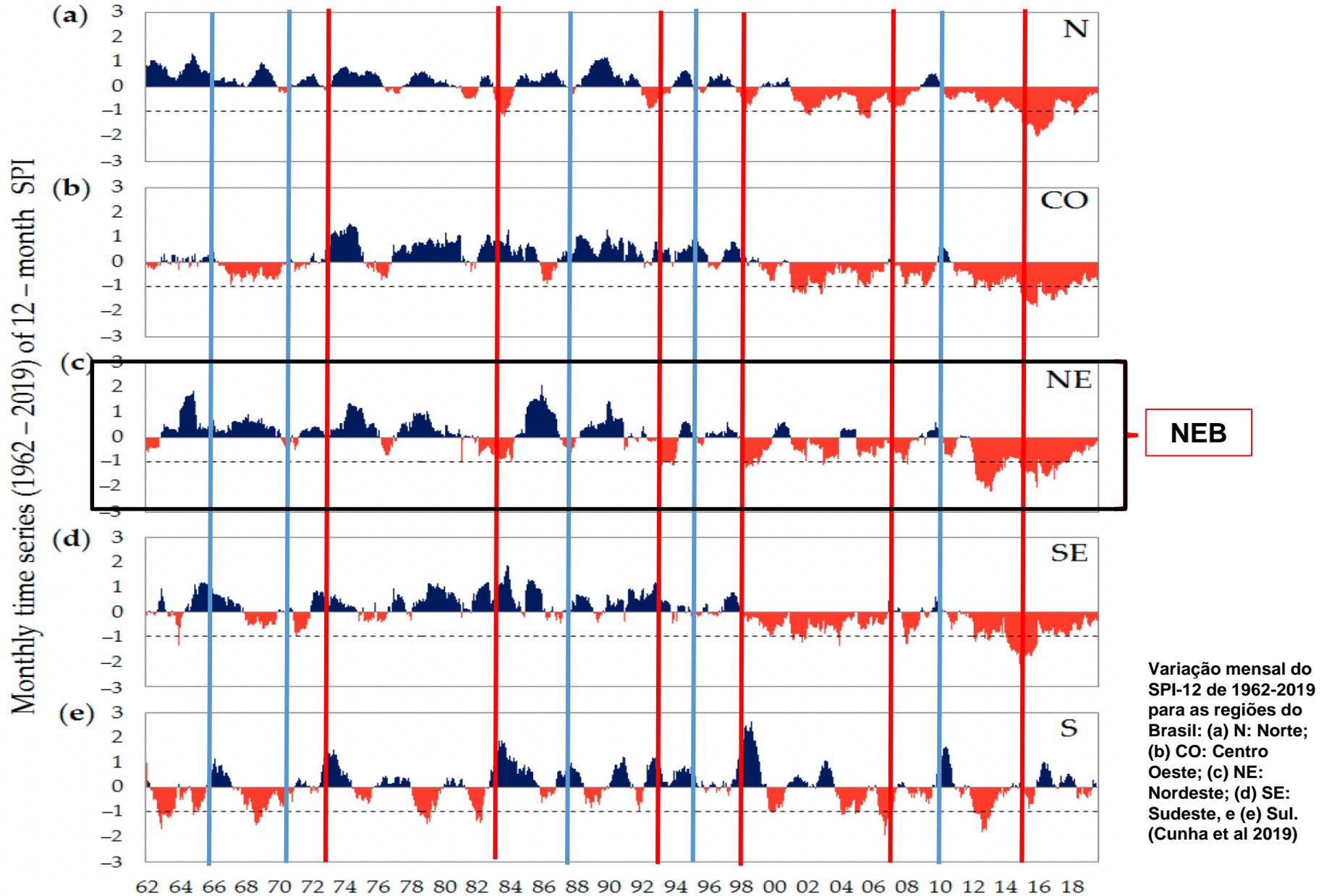
ENSO state based on NINO3.4 SST Anomaly Neutral ENSO:  $-0.5\text{ }^{\circ}\text{C}$  to  $0.5\text{ }^{\circ}\text{C}$



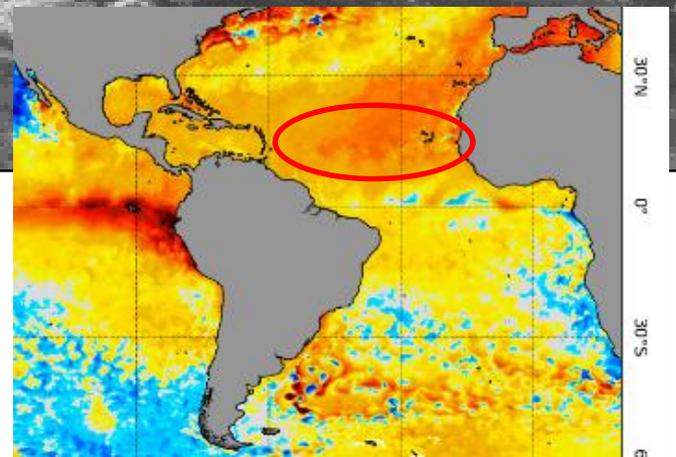
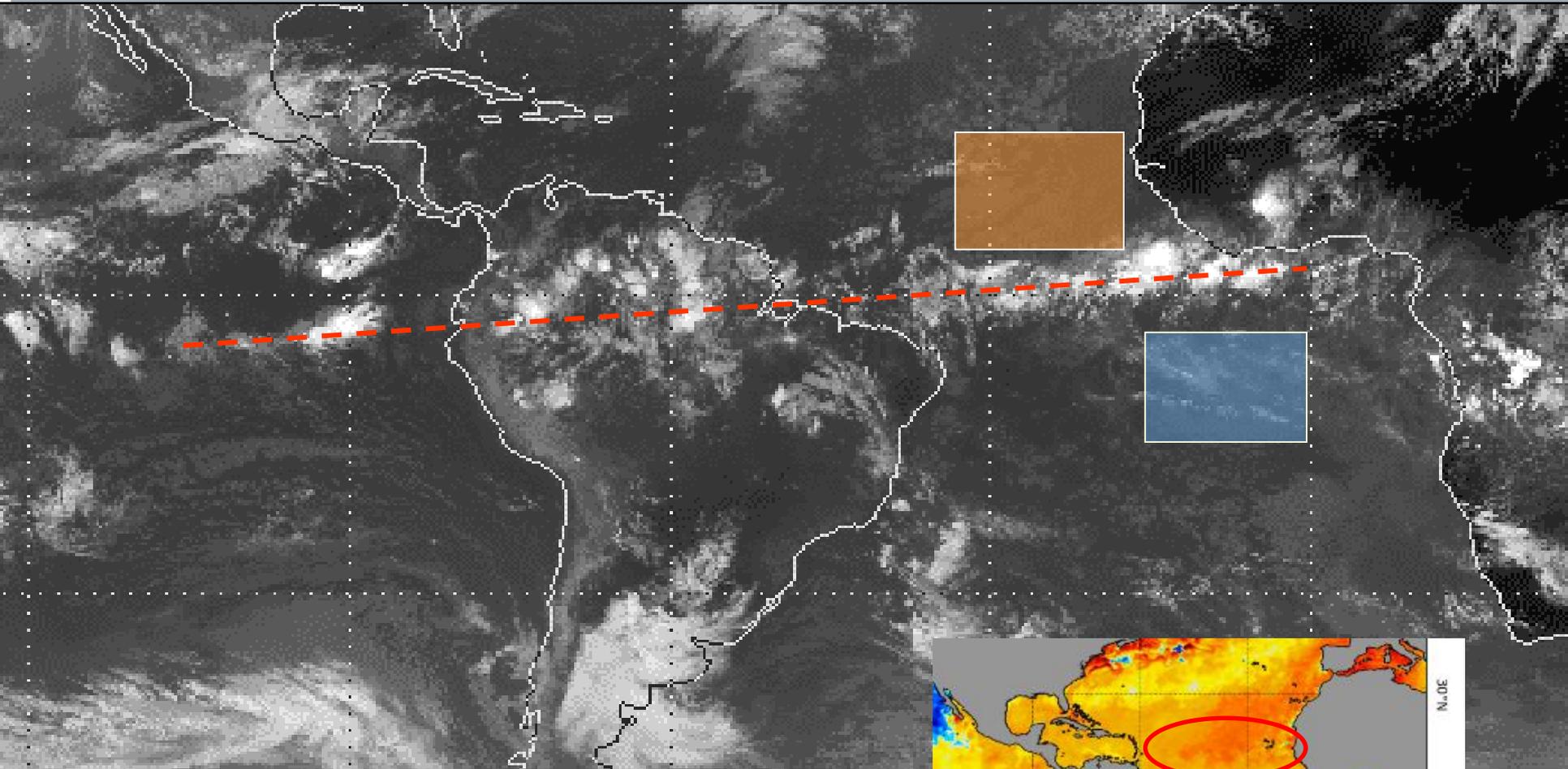
Status Atual: **El Niño**

FONTE: NOAA

# Impacto na Precipitação

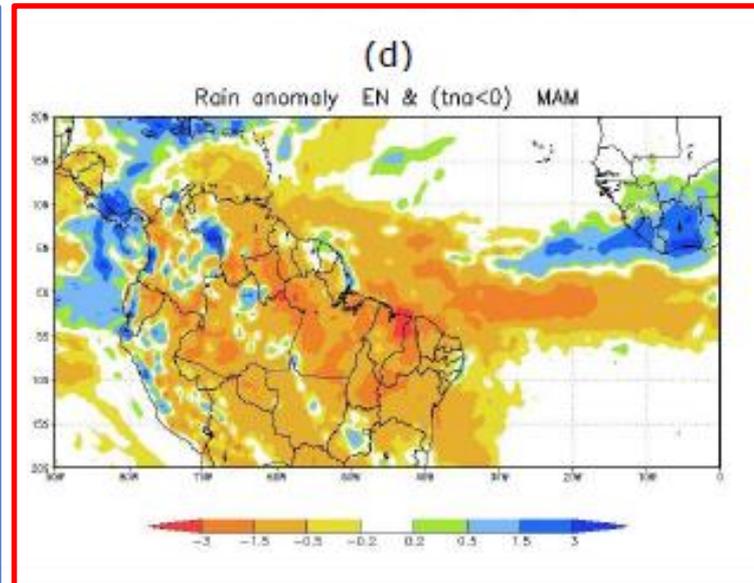
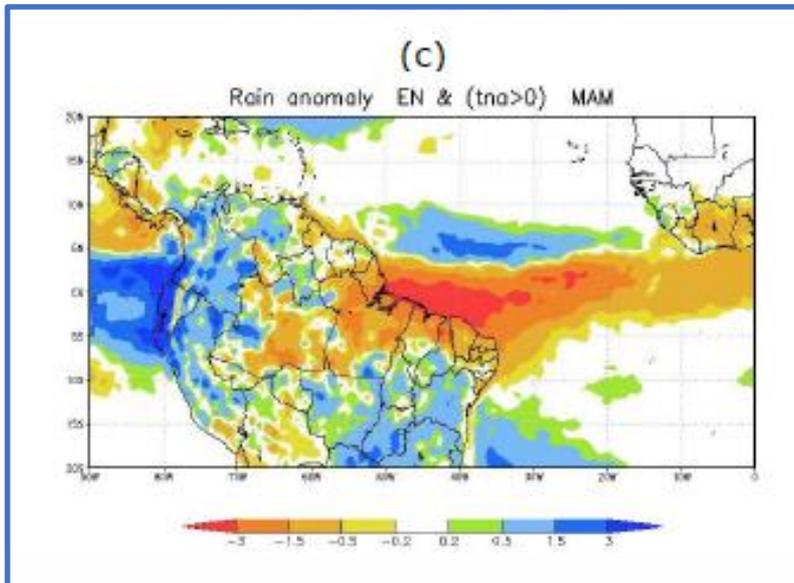


# Zona de Convergencia Intertropical



# Influência do Pacífico e Atlântico

Embora os efeitos do ENOS sejam observacionalmente evidentes na América do Sul, não se deve avaliar a precipitação nesta região sem levar em consideração o padrão das anomalias de TSM no Atlântico Tropical. Como será mostrado, o padrão das anomalias de precipitação sobre o continente pode diferir nos casos de EN e de LN em que ocorram concomitantemente anomalias positivas ou negativas de TSM no Atlântico Tropical Sul (*Tropical Southern Atlantic* – TSA) ou no Atlântico Tropical Norte (*Tropical Northern Atlantic* – TNA).



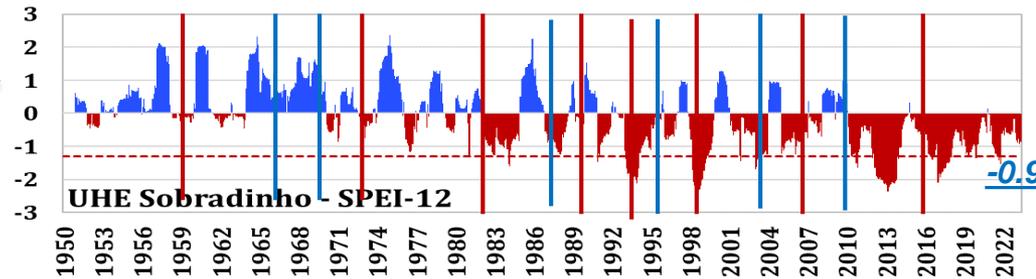
EN+ Dipolo negativo  
Pode “mascarar o  
efeito do EM”

Combinação EN+  
Dipolo positivo  
Provoca as secas mais  
severas

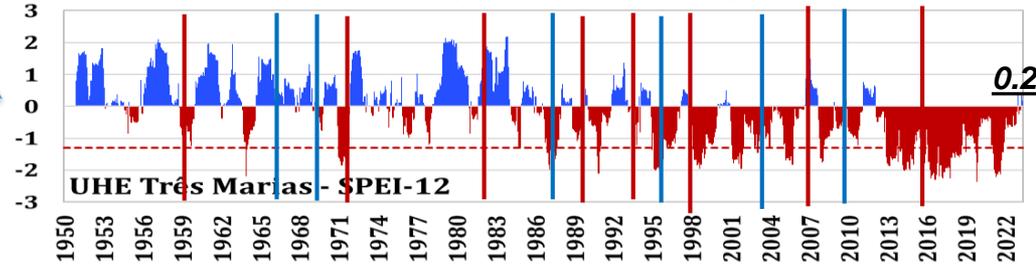
# Monitoramento bacia do São Francisco

**Seca Moderada**

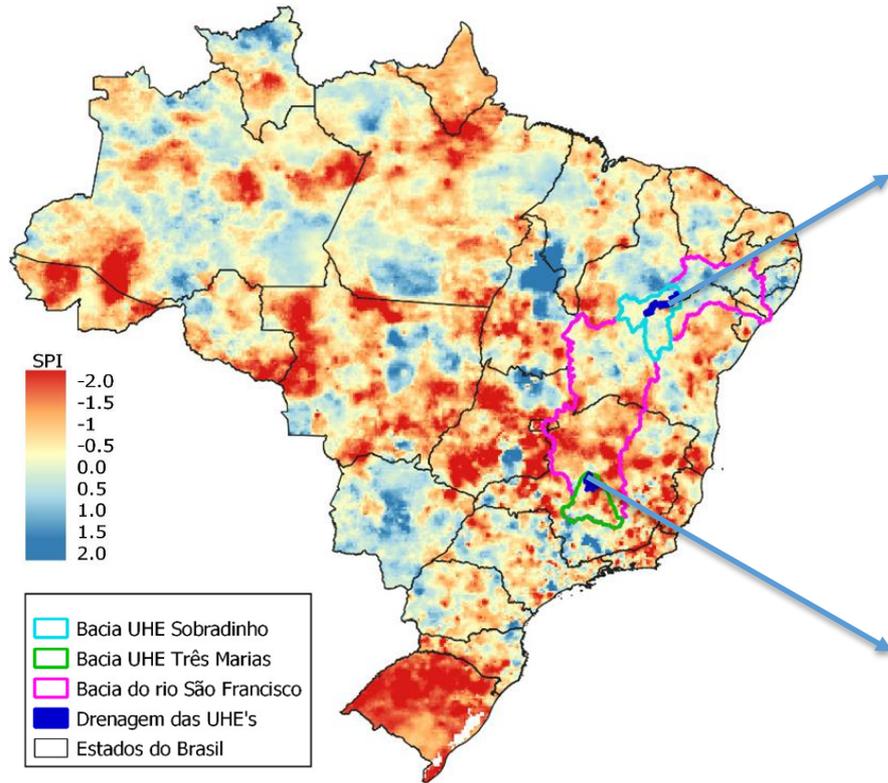
Índice Padronizado Precipitação/Evapotranspiração (SPEI)



Índice Padronizado Precipitação/Evapotranspiração (SPEI)



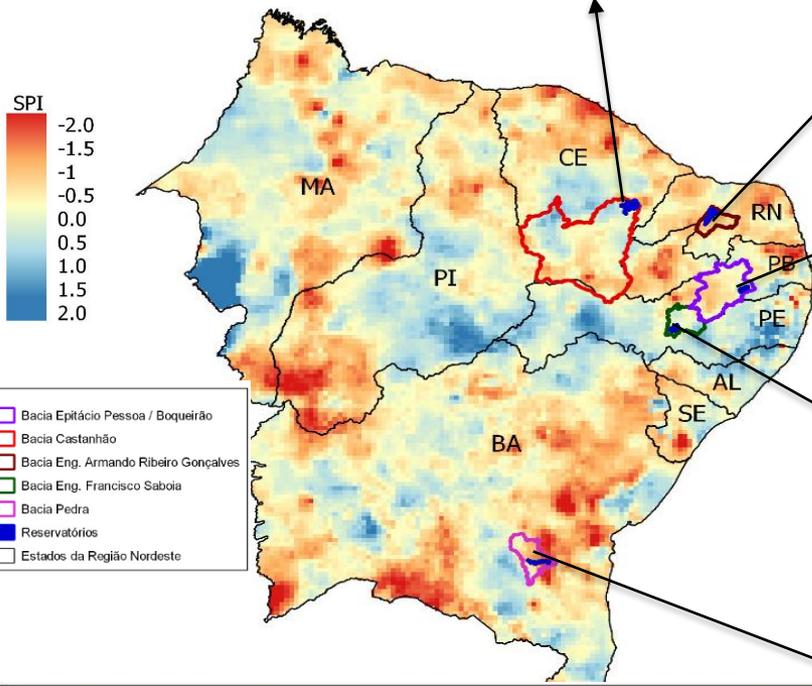
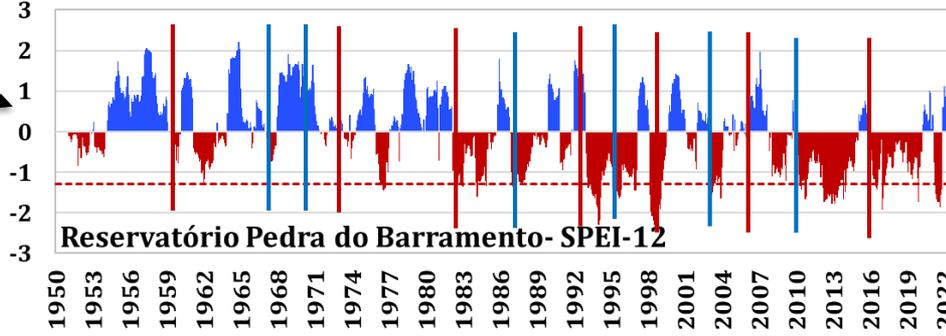
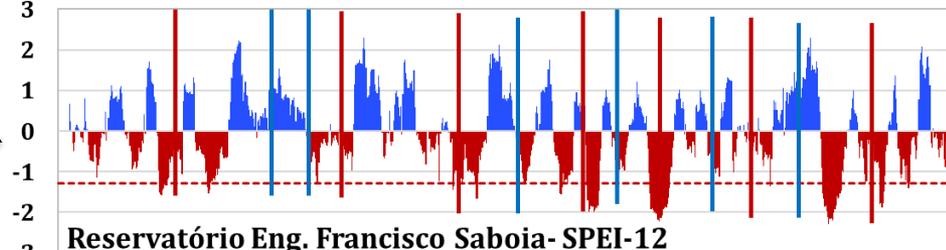
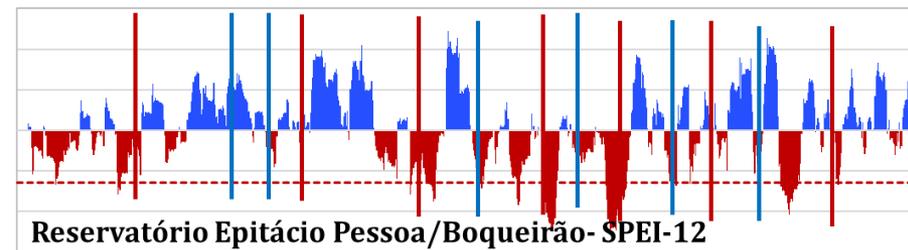
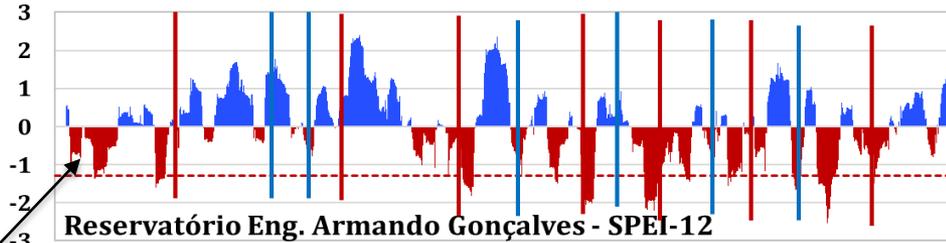
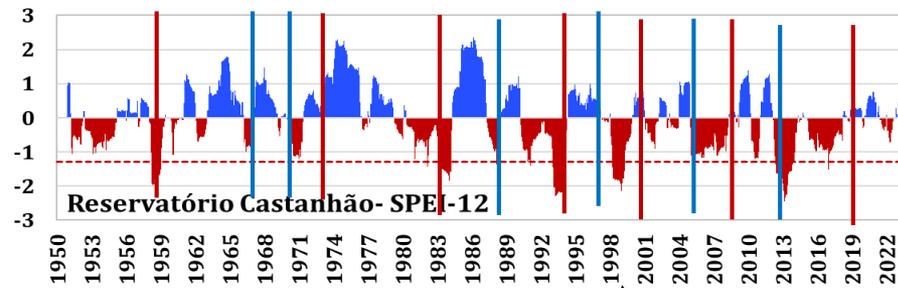
**Condição de Normalidade**



**SPI 12 - Junho de 2023**

Bacia	Excepcional	Extrema	Severa	Moderada	Fraca	Normal
São Francisco	3%	5%	6%	15%	11%	60%
Sobradinho	0%	0%	0%	3%	3%	93%
Três Marias	9%	7%	8%	21%	10%	46%

# Monitoramento Nordeste

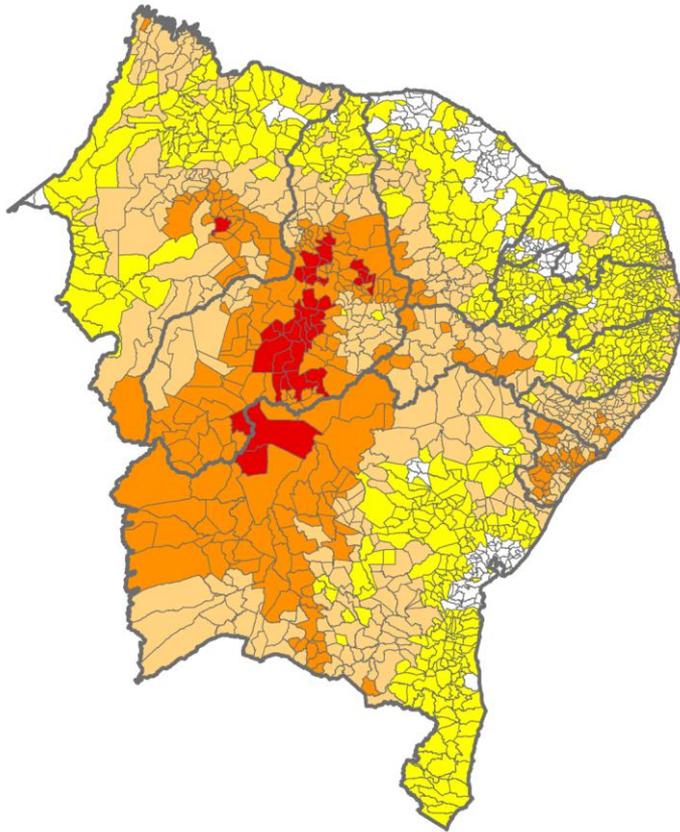


SPI 12 - Junho de 2023						
Bacia	Excepcional	Extrema	Severa	Moderada	Fraca	Normal
Castanhão	0%	0%	1%	5%	11%	83%
Eng. Armando Ribeiro Gonçalves	0%	0%	0%	18%	57%	25%
Epitácio Pessoa / Boqueirão	0%	0%	0%	1%	18%	81%
Eng. Francisco Saboia	0%	0%	0%	0%	0%	100%
Pedra	4%	7%	4%	33%	7%	46%

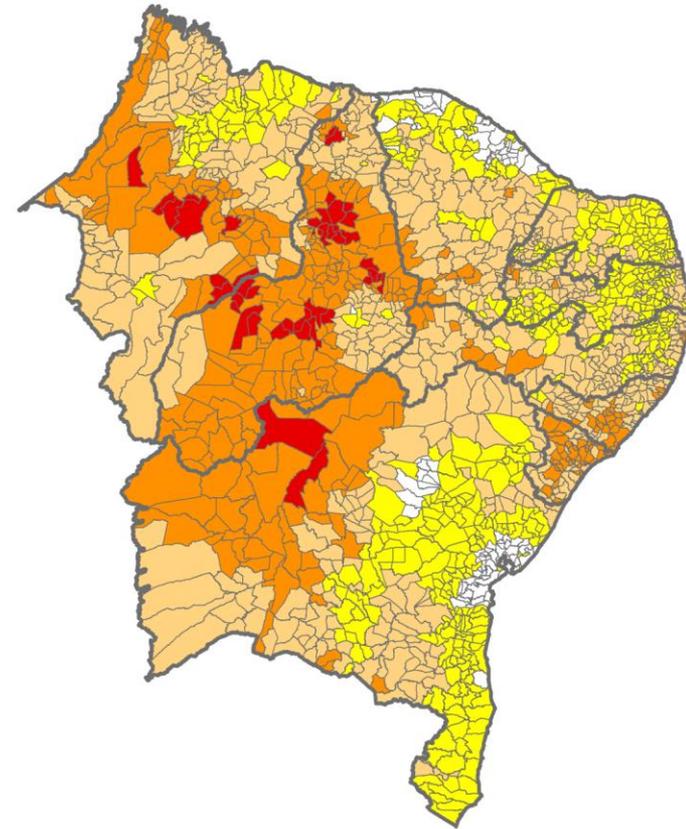
# ÍNDICE INTEGRADO DE SECA - IIS

(SPI3 E 6 + VHI + AUS): **AGOSTO/2015**

**IIS 3 MESES**



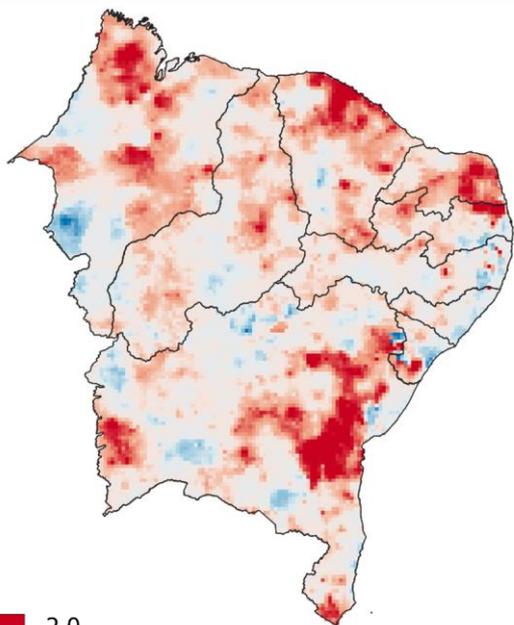
**IIS 6 MESES**



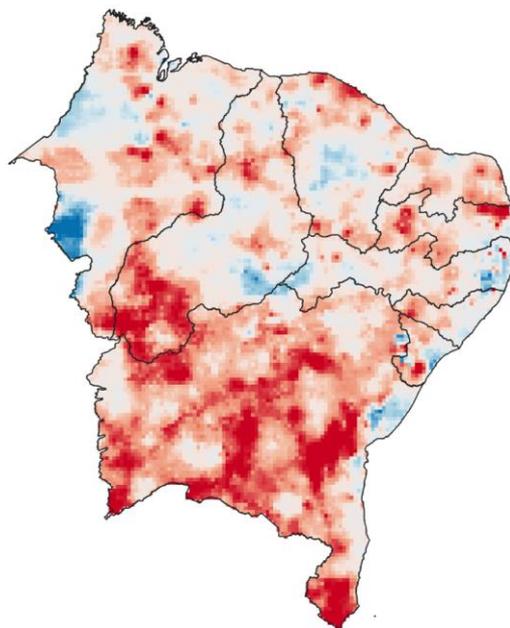
- Seca Excepcional
- Seca Extrema
- Seca Severa
- Seca Moderada
- Seca Fraca
- Normal

# SPI: JUNHO2023

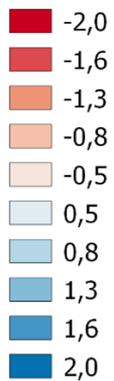
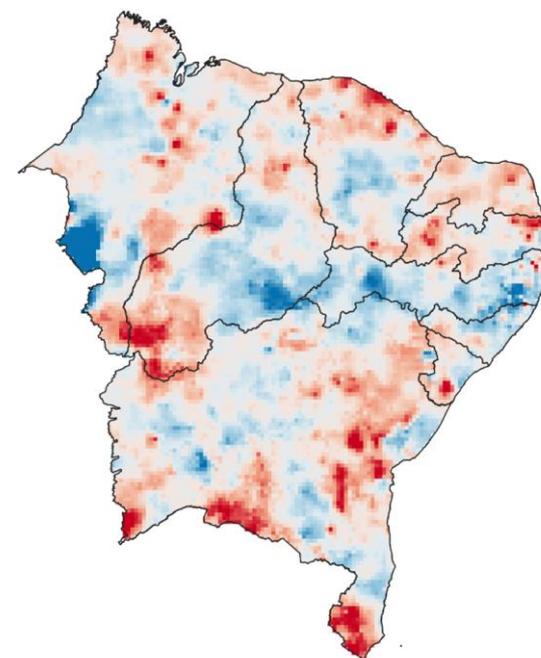
SPI03



SPI06



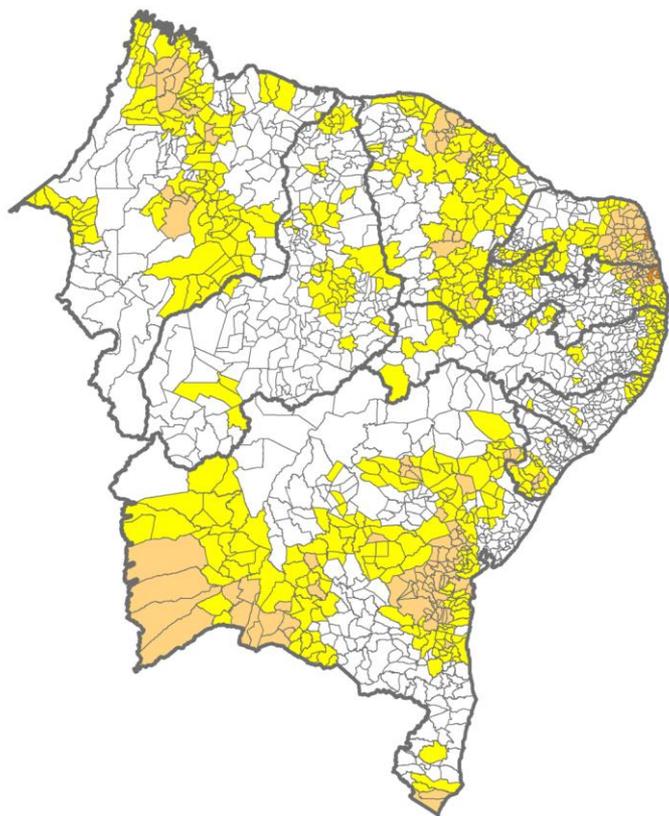
SPI12



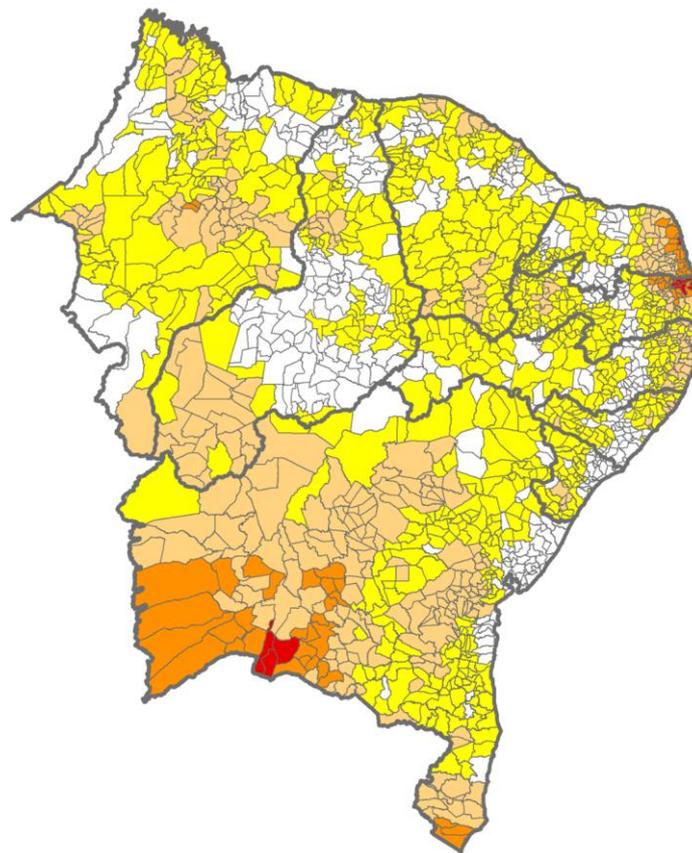
# ÍNDICE INTEGRADO DE SECA - IIS

(SPI3 E 6 + VHI + AUS): JUNHO/2023

**IIS 3 MESES**



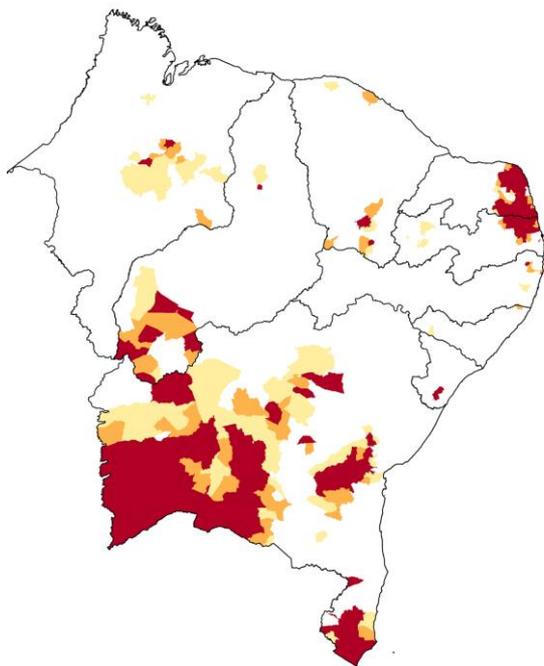
**IIS 6 MESES**



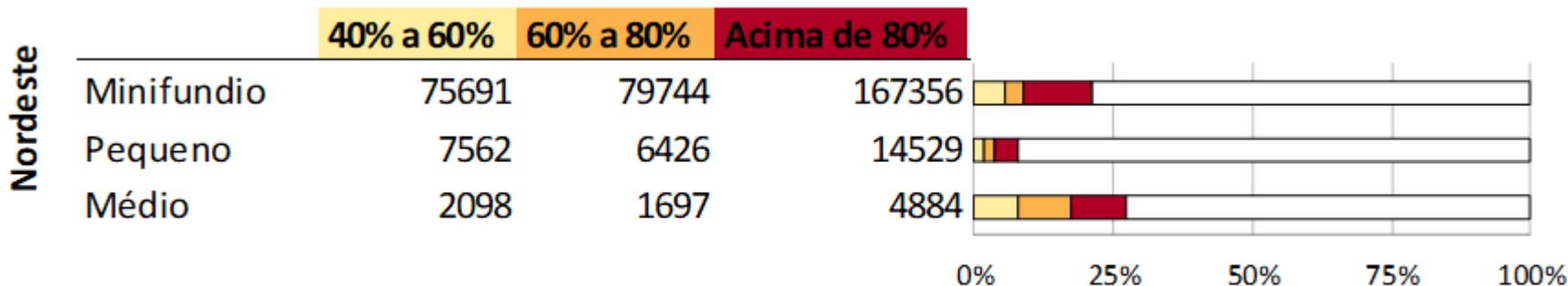
- Seca Excepcional
- Seca Extrema
- Seca Severa
- Seca Moderada
- Seca Fraca
- Normal

# ÁREAS DE PASTAGENS E AGRÍCOLAS AFETADAS PELA SECA

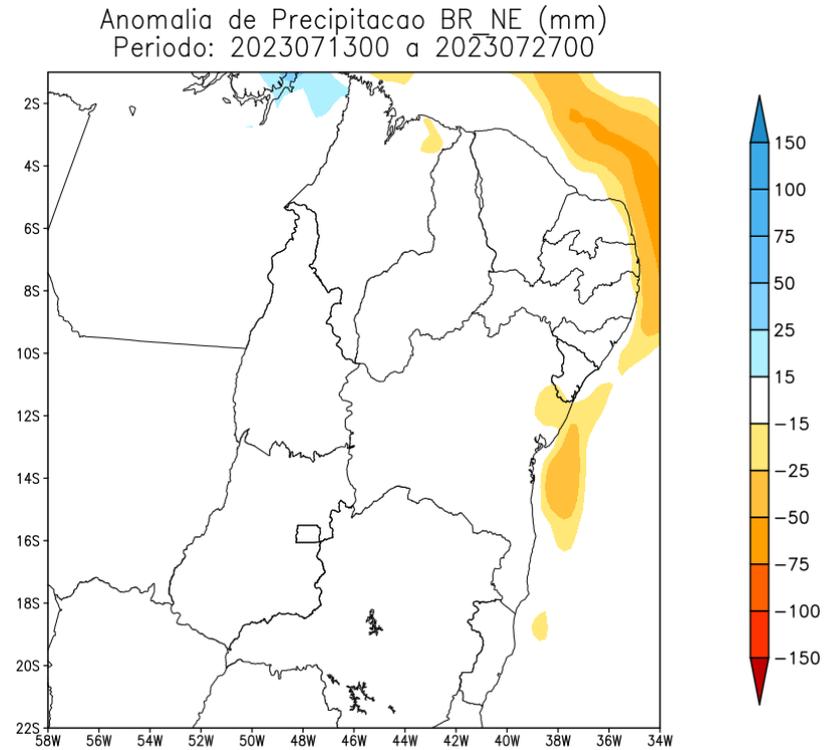
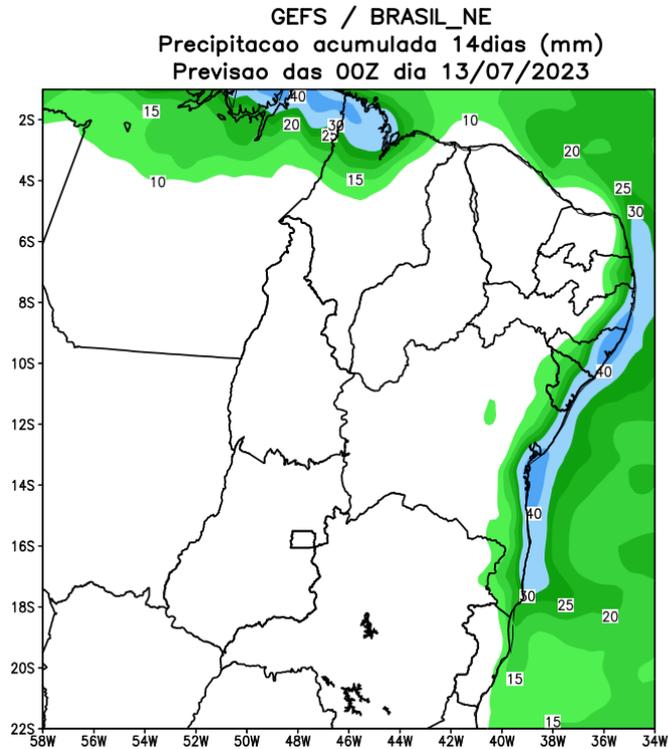
## JUN/23



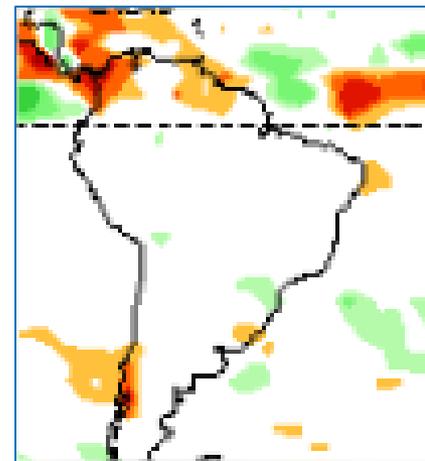
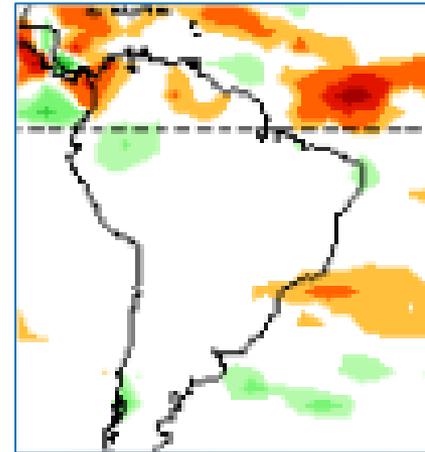
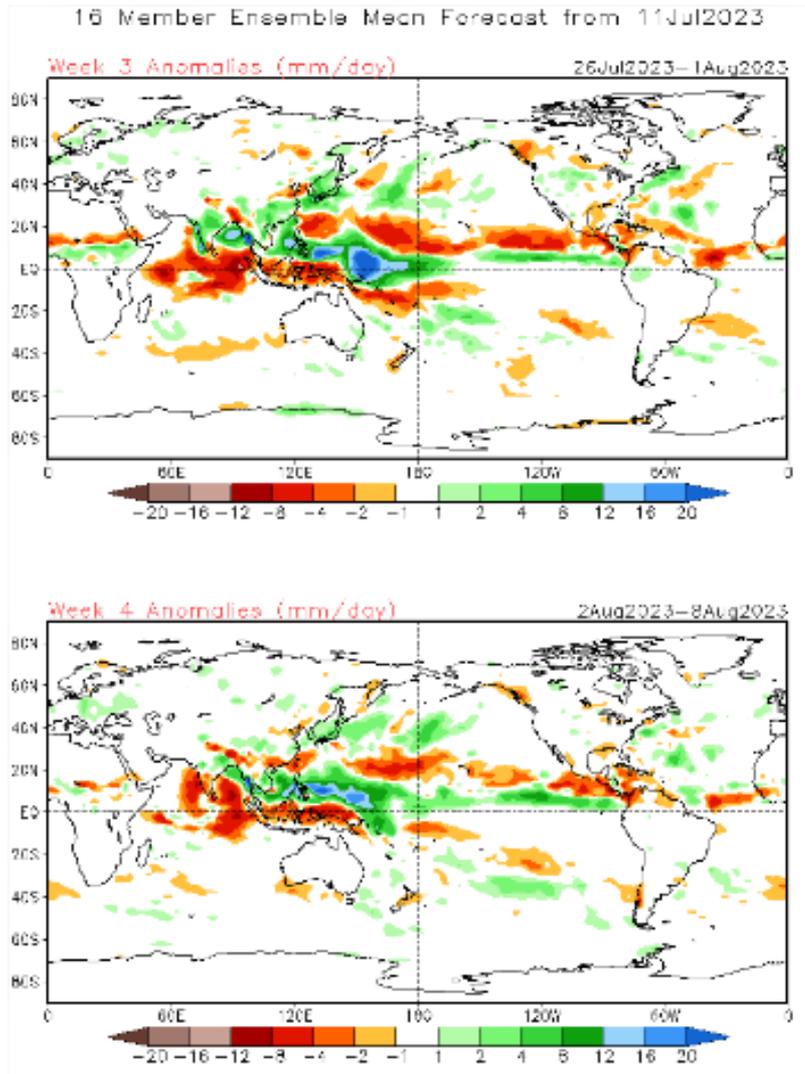
UF	40 a 60%	60 - 80%	> 80%
AL	1	1	
BA	37	28	92
CE	3	6	2
MA	15	7	4
PB	4	6	35
PE	3	3	2
PI	3	5	8
RN	3	9	44
SE			4



# Tendência de Chuva para as próximas duas semanas

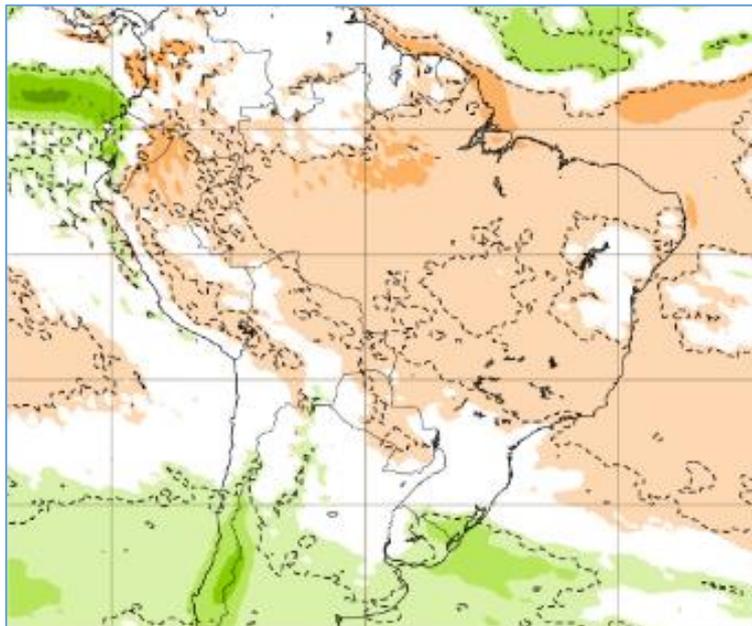


# Tendência 3a e 4a semanas

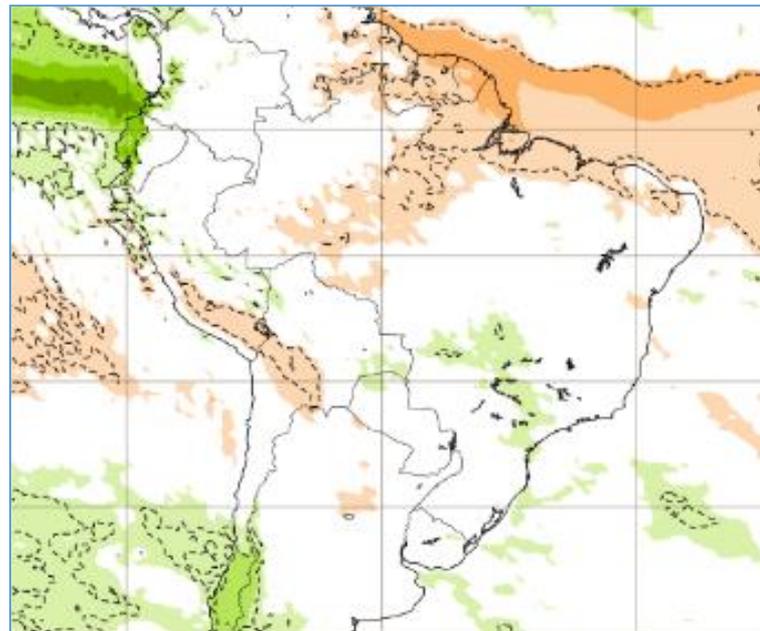


# Tendência para 3ª e 4ª semanas

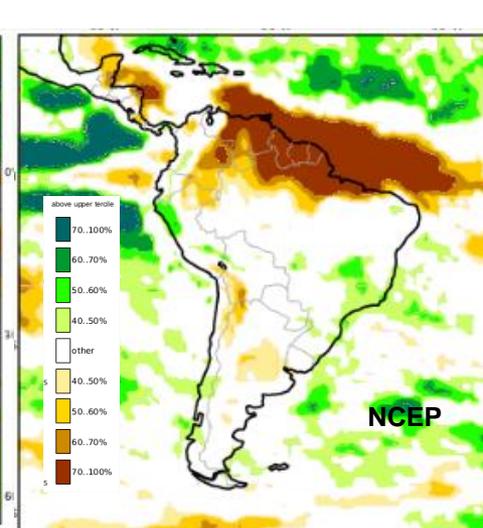
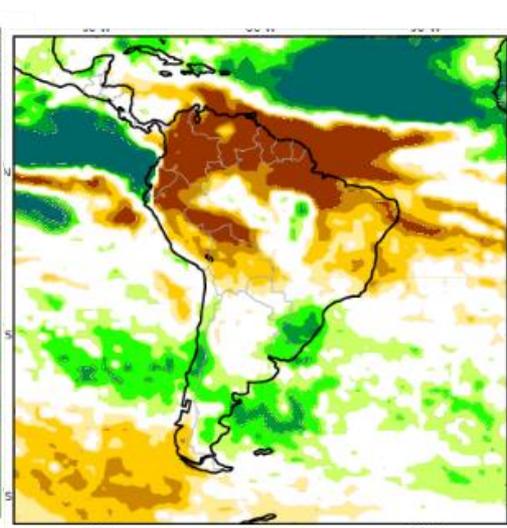
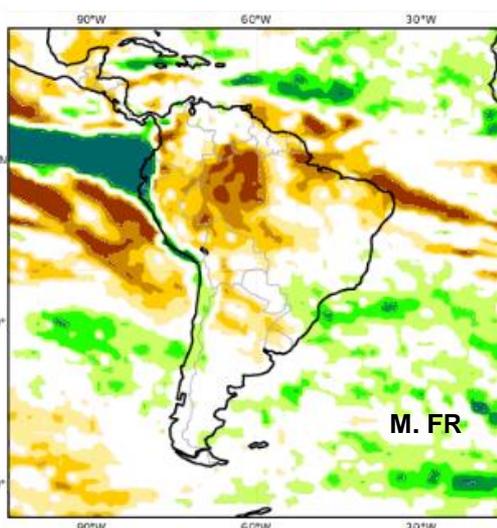
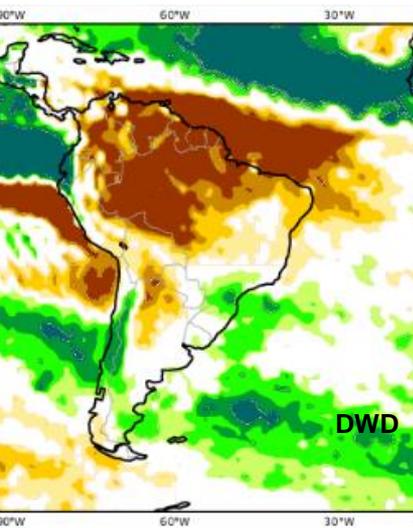
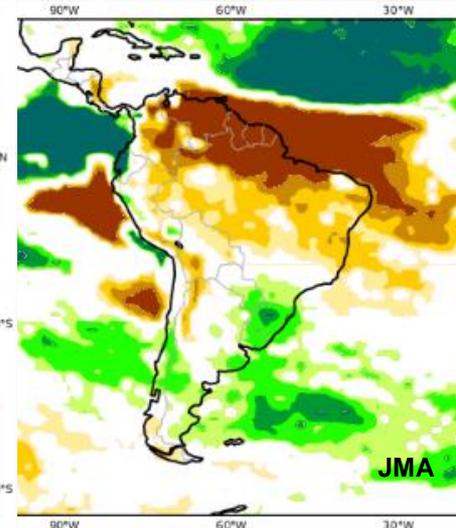
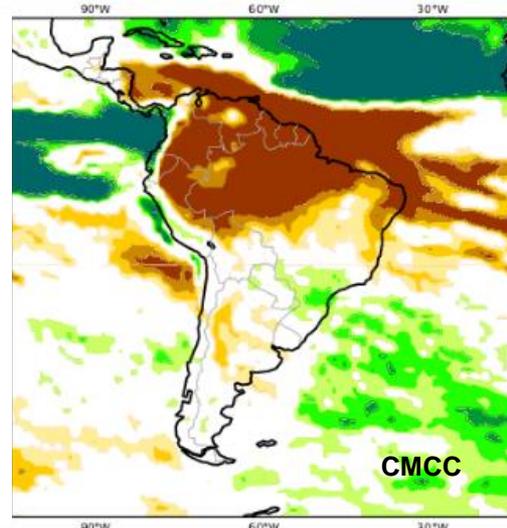
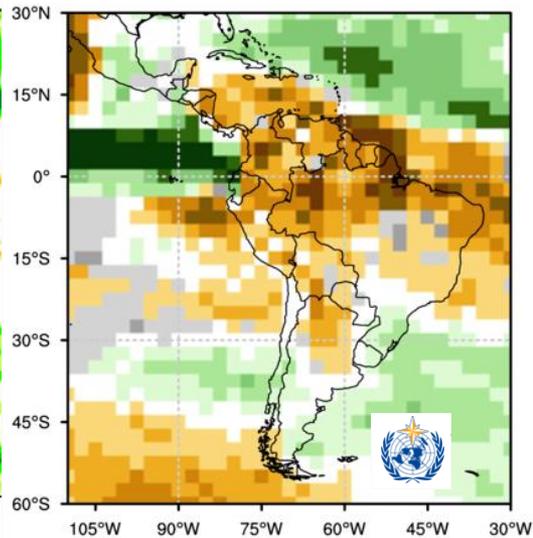
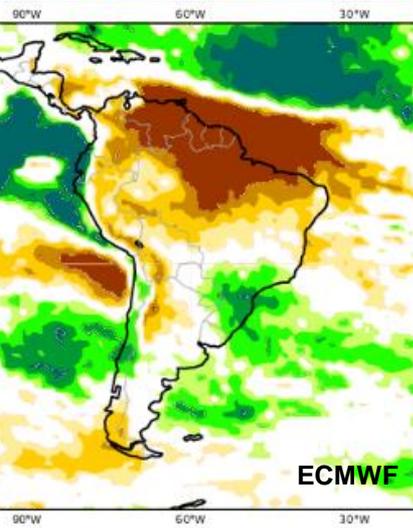
24-31/07



31/07-06/08



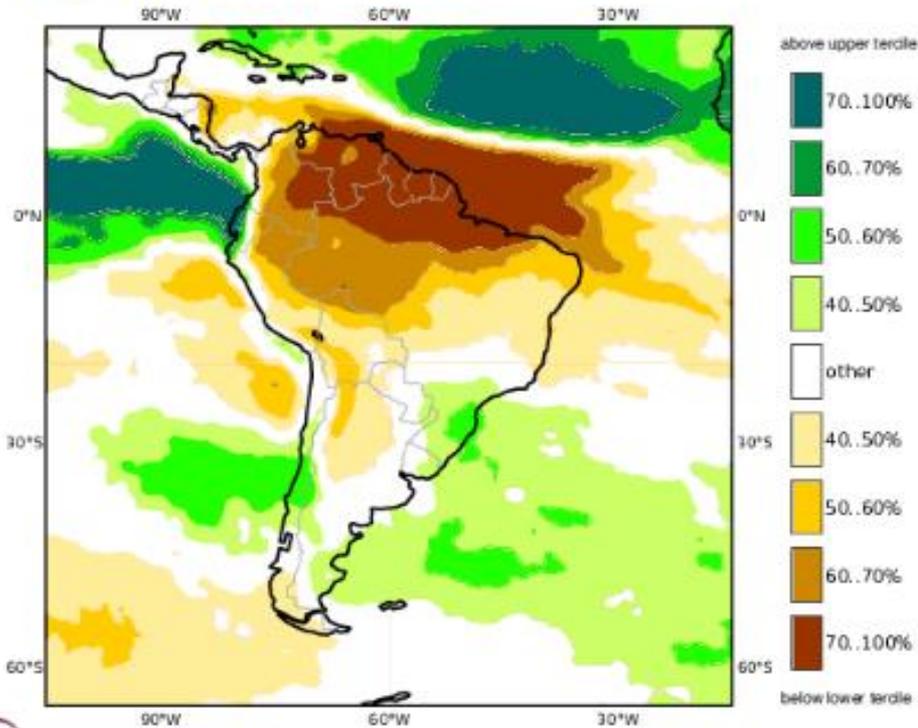
# Previsão sazonal de Chuva ASO



# Previsão Multi Modelo ASO

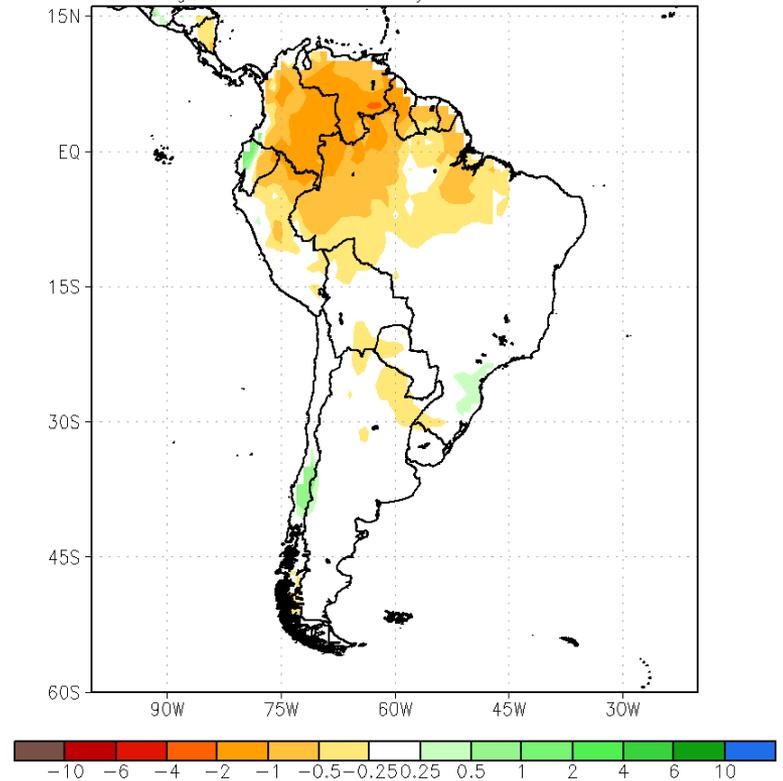
C3S multi-system seasonal forecast  
Prob(most likely category of precipitation)  
Nominal forecast start: 01/07/23  
Unweighted mean

ASO 2023



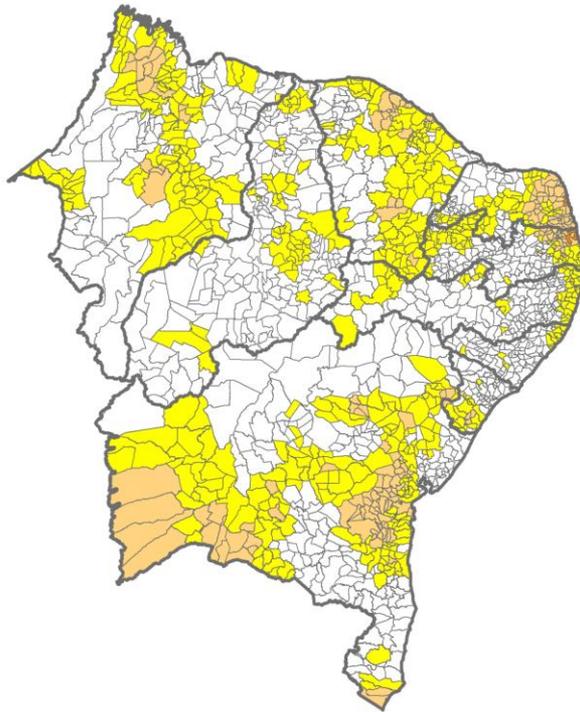
NMME Precipitation Anomalies (mm/day)

Aug2023–Oct2023 July2023 initial conditions

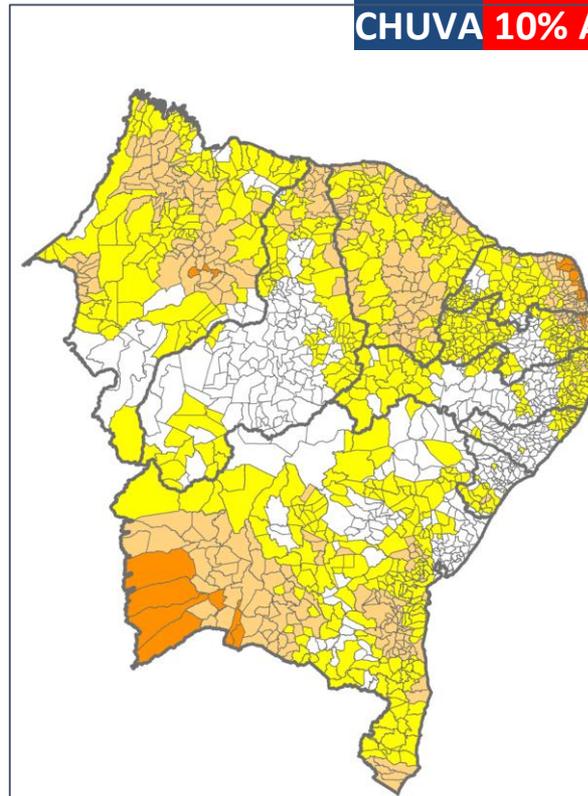


# CENÁRIOS ÍNDICE INTEGRADO DE SECA - JULHO E AGOSTO/2023

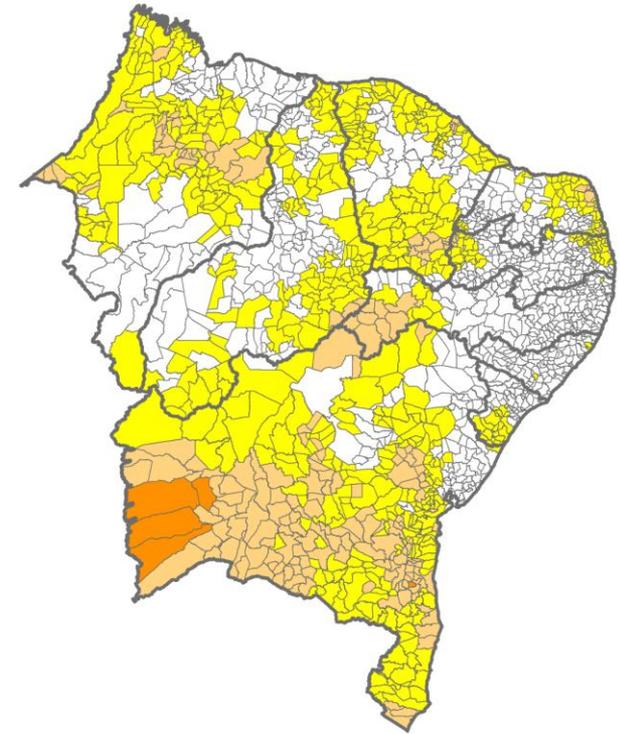
IIS3 - junho



IIS3 - julho



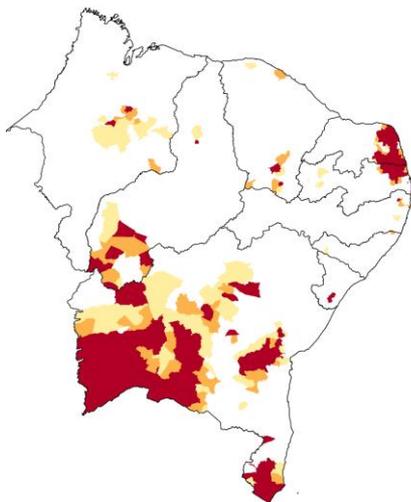
IIS3- agosto



- Seca Excepcional
- Seca Extrema
- Seca Severa
- Seca Moderada
- Seca Fraca
- Normal

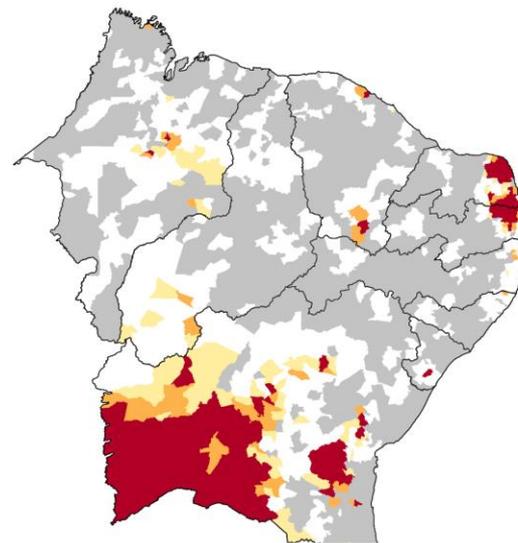
# ÁREAS DE PASTAGENS E AGRÍCOLAS AFETADAS PELA SECA

OBSERVADO - JUN/23



	40 a 60%	60 - 80%	> 80%
Junho	69	65	191
Previsão - Jul	78	51	156
Previsão - Ago	60	56	110

PREVISÃO – JUL-AGO/23



Atenção

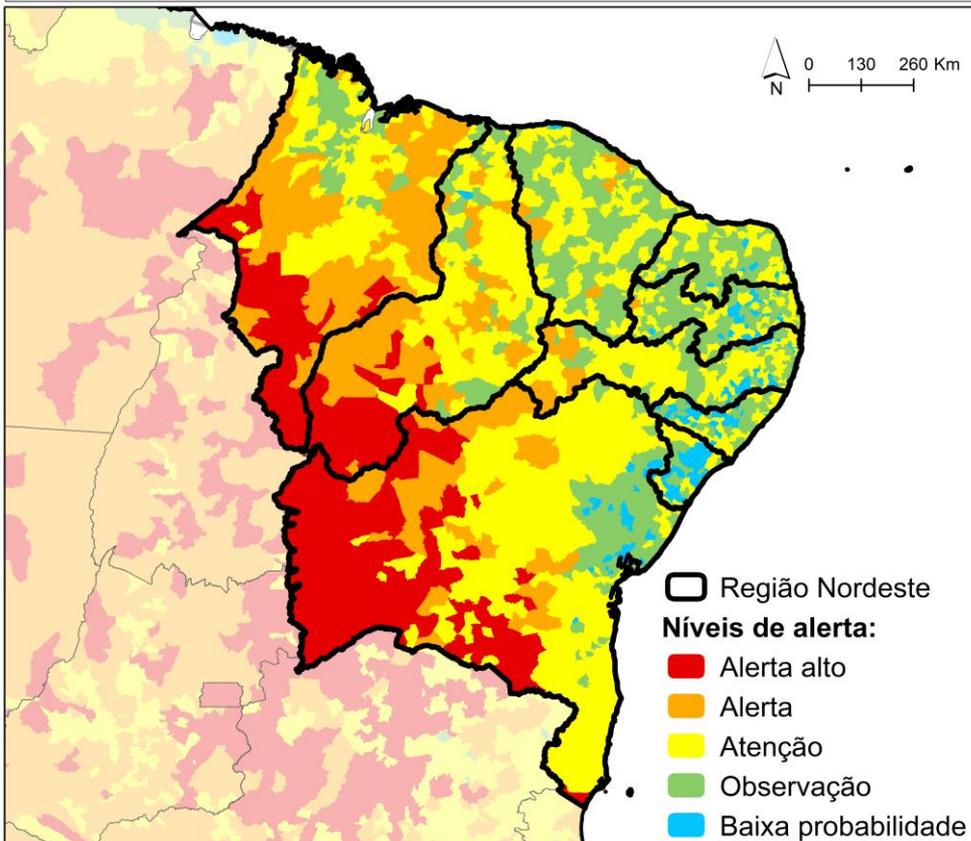
**1.050 MUNICÍPIOS EM  
ESTADO DE ATENÇÃO**

**ATENÇÃO:** MUNICÍPIOS COM MENOS DE 40% DAS ÁREAS AGROPRODUTIVAS AFETADAS PELA SECA, MAS QUE TIVERAM UM AUMENTO DESTA ÁREA EM RELAÇÃO AO MÊS ANTERIOR.

# Previsão de probabilidade de fogo - Jul-Ago-Set 2023

## Previsão de alertas por municípios

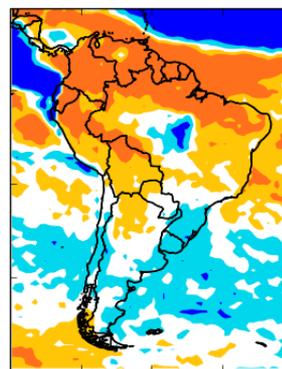
Previsão da Probabilidade de Fogo para a região Nordeste brasileira para o período de Julho, Agosto e Setembro de 2023



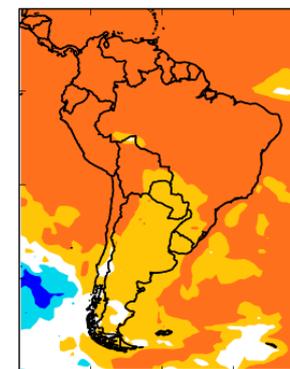
## Resultados dos níveis de alerta para municípios brasileiros:

Nível de Alerta	Número de municípios	Área (km <sup>2</sup> )
Alerta alto	355	1,318,169
Alerta	610	3,215,210
Atenção	2217	2,699,309
Observação	768	253,615
Baixa probabilidade	1620	1,010,974

Probabilidade de Chuva JAS



Probabilidade de Temperatura JAS



# Previsão Sazonal de vazão

