

# Monitoramento da situação do El Niño na Região Nordeste

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16 DE NOVEMBRO/ 2023



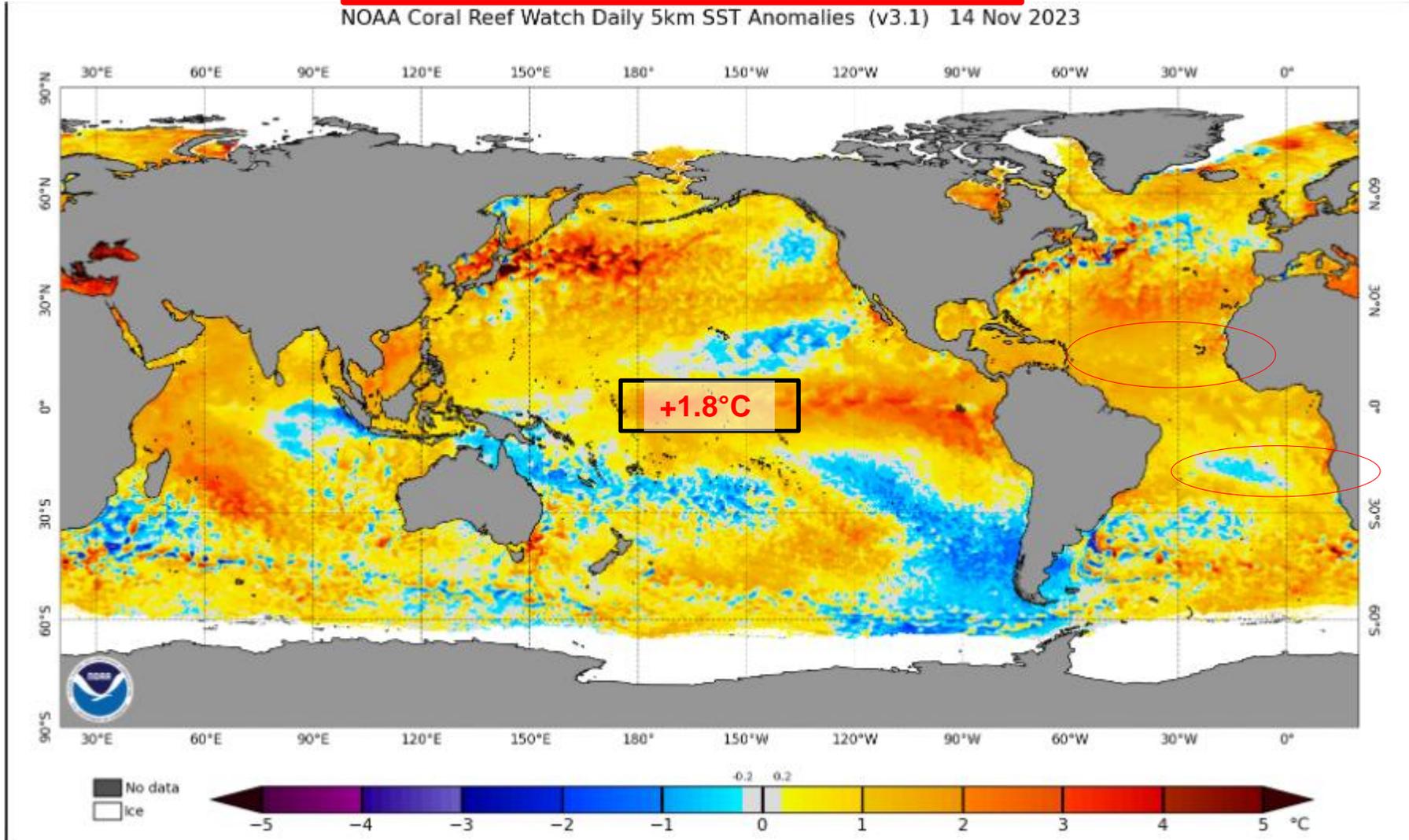
MINISTÉRIO DA  
CIÊNCIA, TECNOLOGIA  
E INOVAÇÃO





Status Atual: **El Niño**

NOAA Coral Reef Watch Daily 5km SST Anomalies (v3.1) 14 Nov 2023

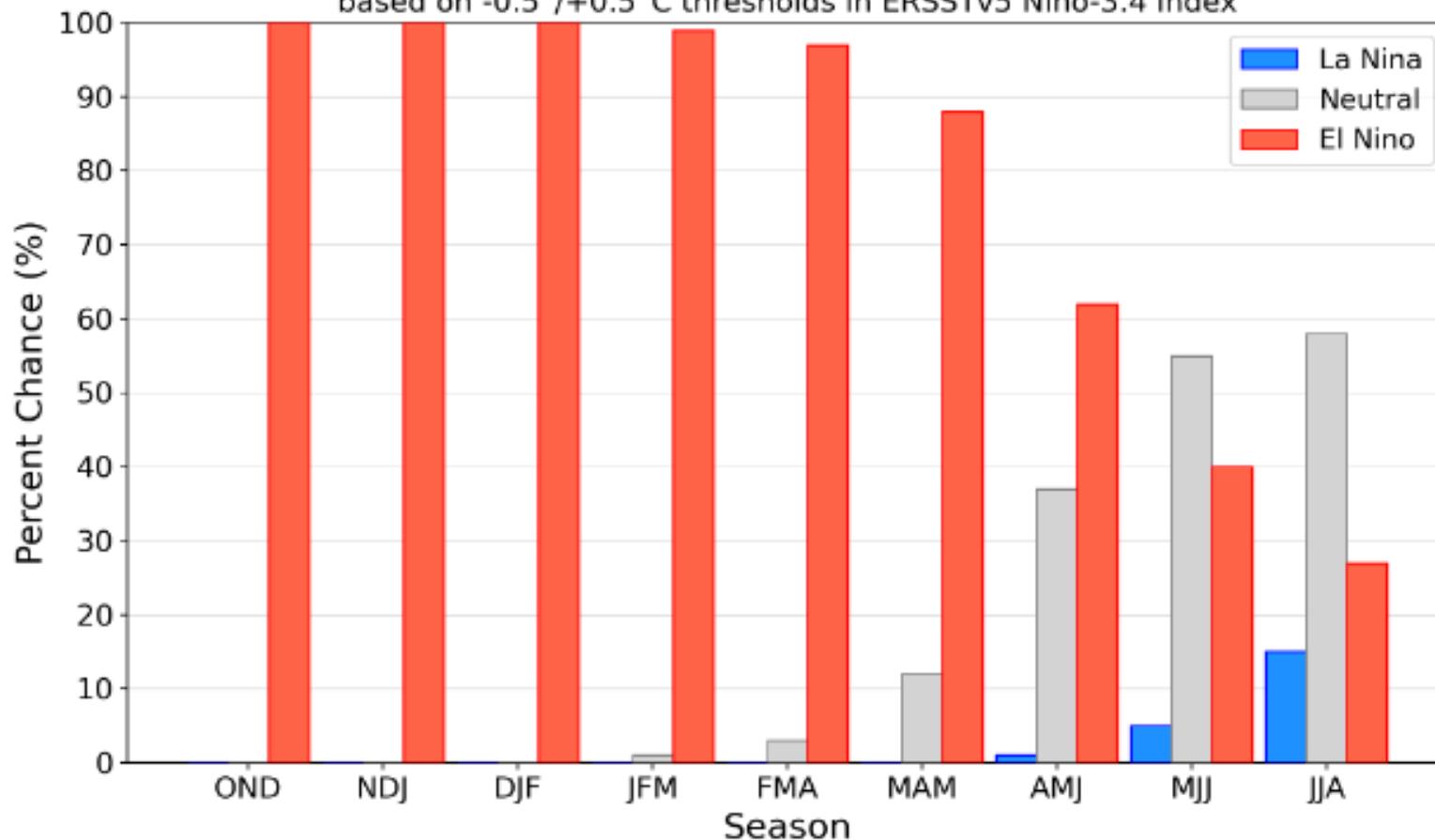




## Previsão do “ENSO”

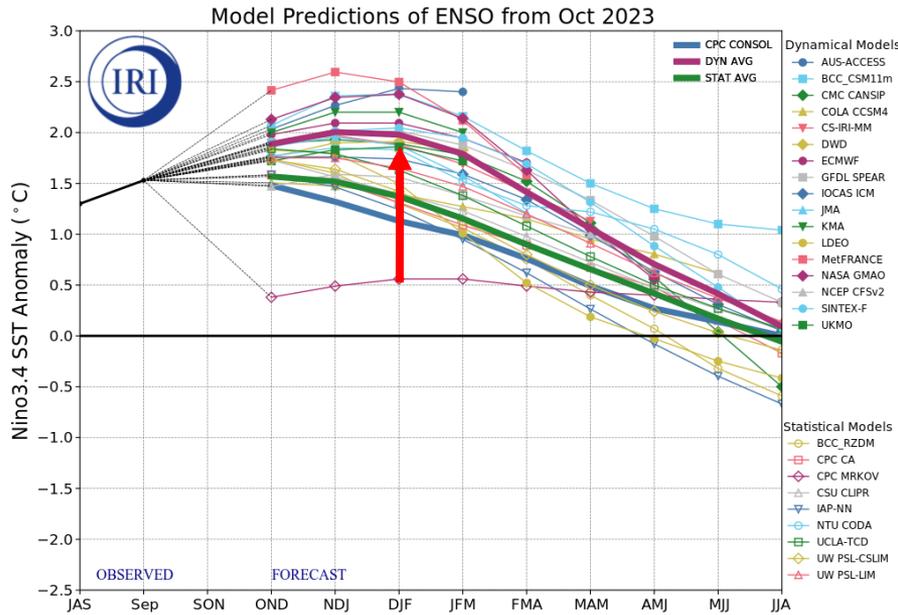
### Official NOAA CPC ENSO Probabilities (issued Nov. 2023)

based on  $-0.5^{\circ}/+0.5^{\circ}\text{C}$  thresholds in ERSSTv5 Niño-3.4 index





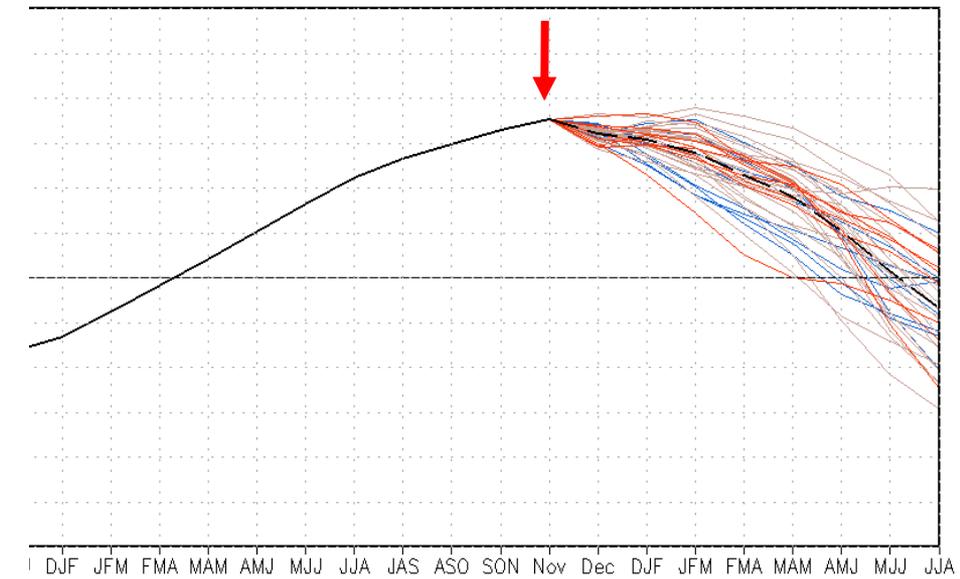
## Previsão do “ENSO”



Atualizado 19 de outubro

FORNE: NOAA

CFSv2 forecast Nino3.4 SST anomalies (K) (PDF corrected)

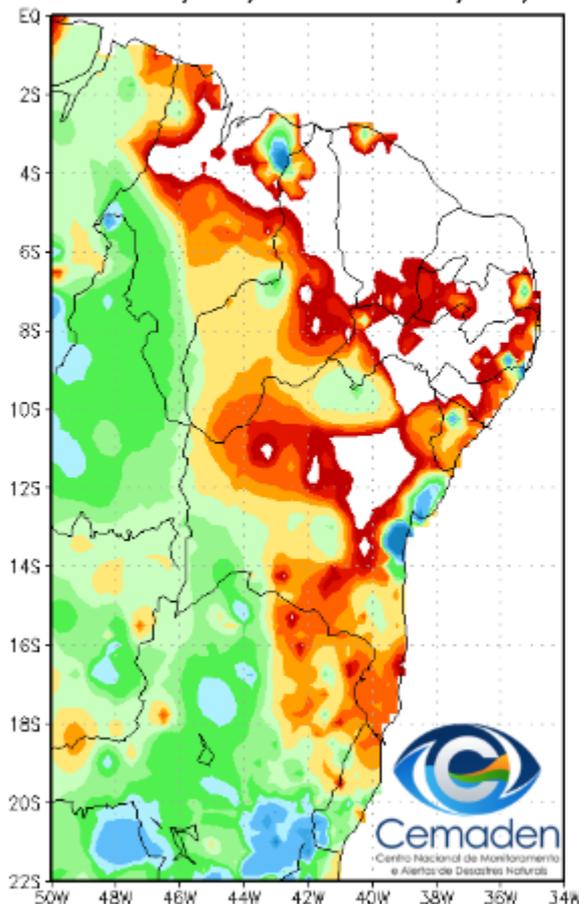


(Climatology base period: 1991–2020)

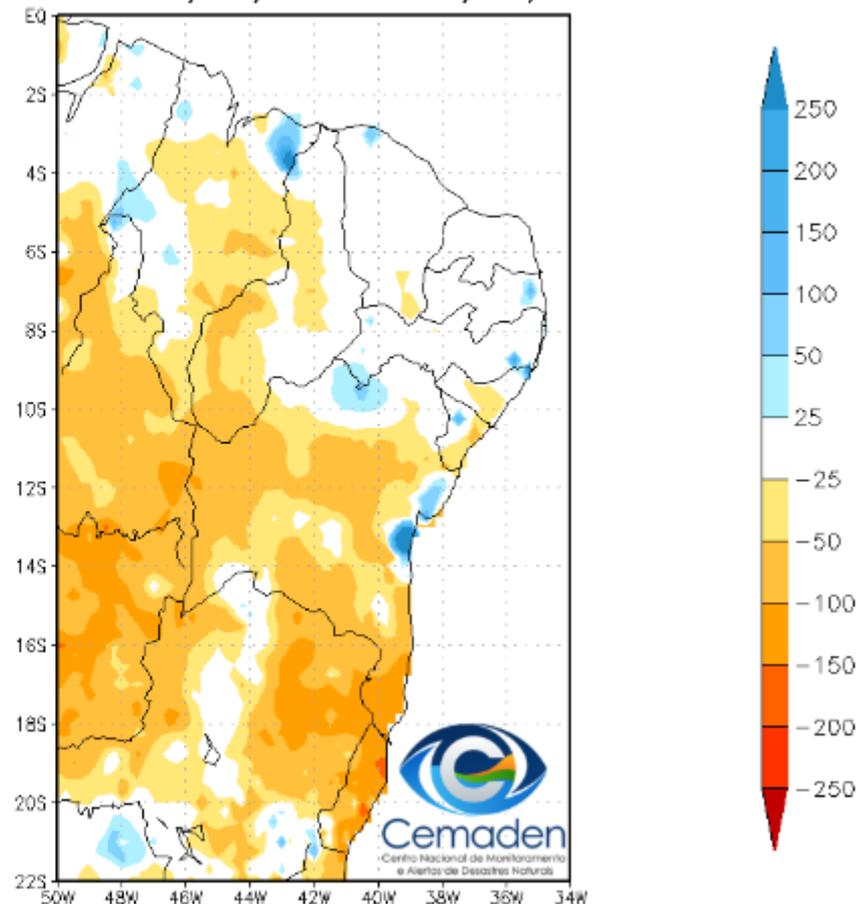
Atualizado 13 de novembro

## Chuva dos últimos 30 dias

Precipitação Acumulada (mm)  
Período: 15/10/2023 a 14/11/2023

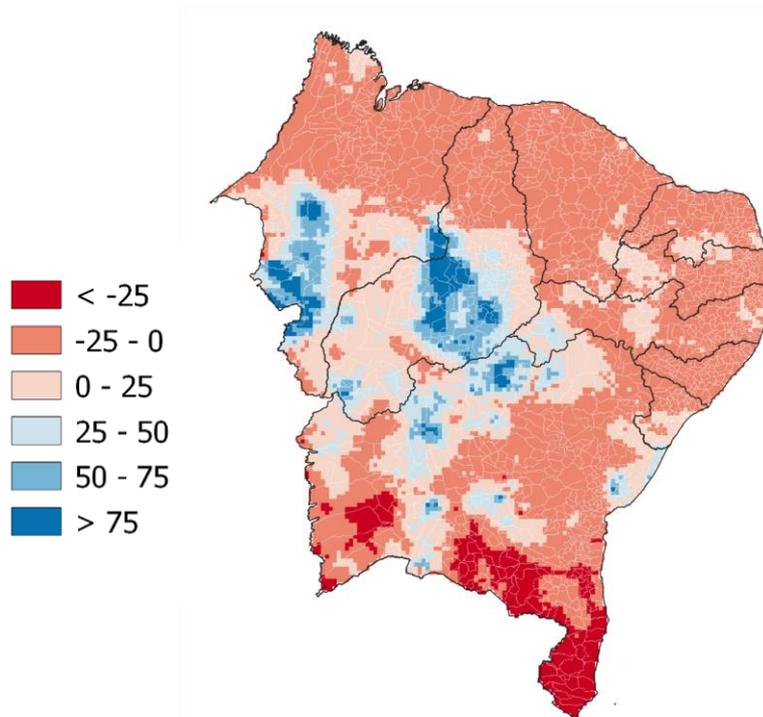


Anomalia de Precipitação (mm)  
Período: 15/10/2023 a 14/11/2023

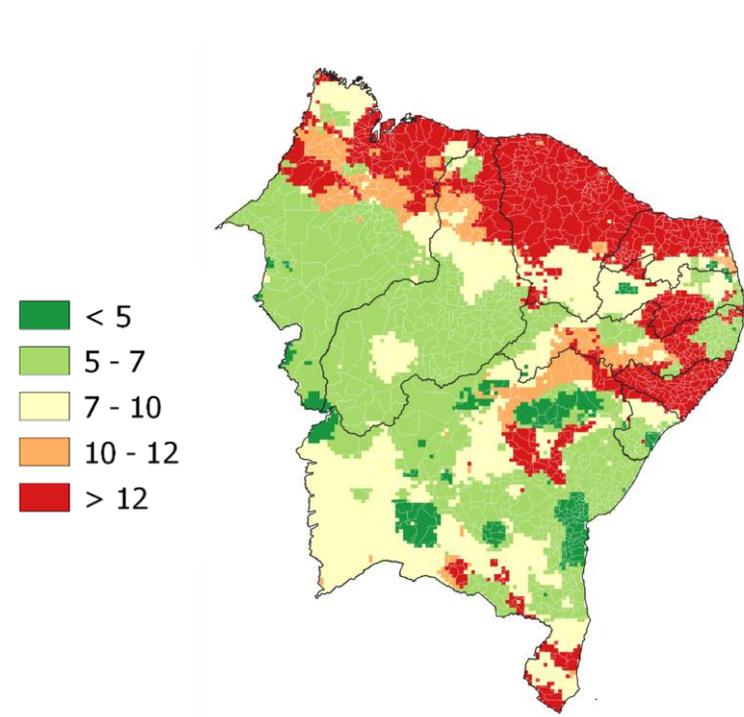


## PRECIPITAÇÃO: NOVEMBRO 2023

### Anomalia (mm)

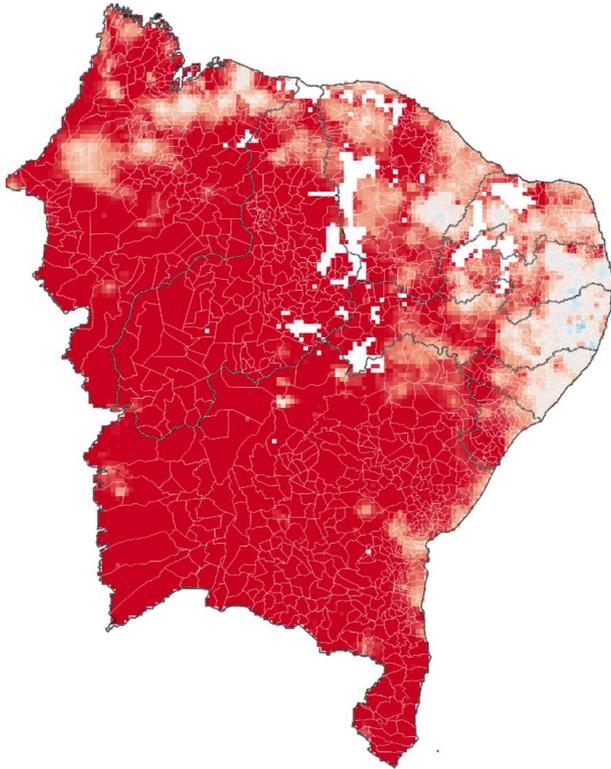


### Máximo de dias consecutivos sem chuva

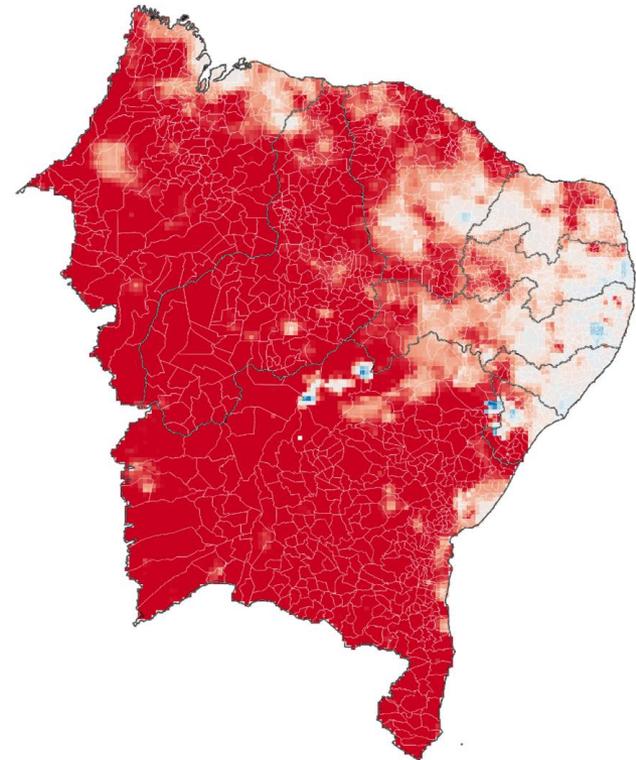


# SPIs: NOVEMBRO 2023

## SPI 03

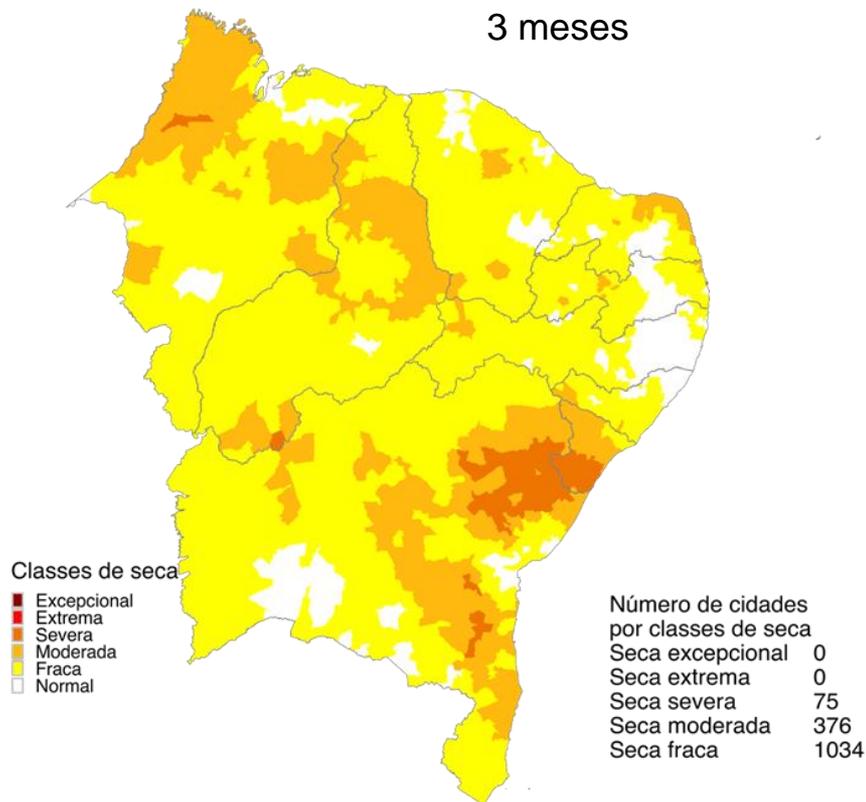


## SPI 06

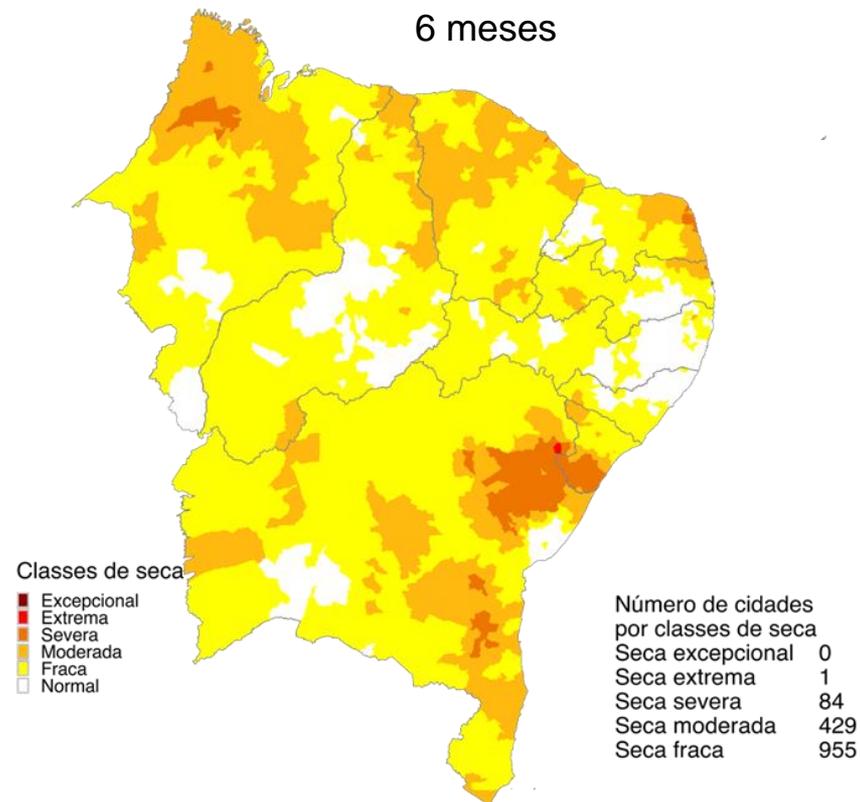


## ÍNDICE INTEGRADO DE SECA - IIS (SPI + VHI + AUS)

3 meses



6 meses

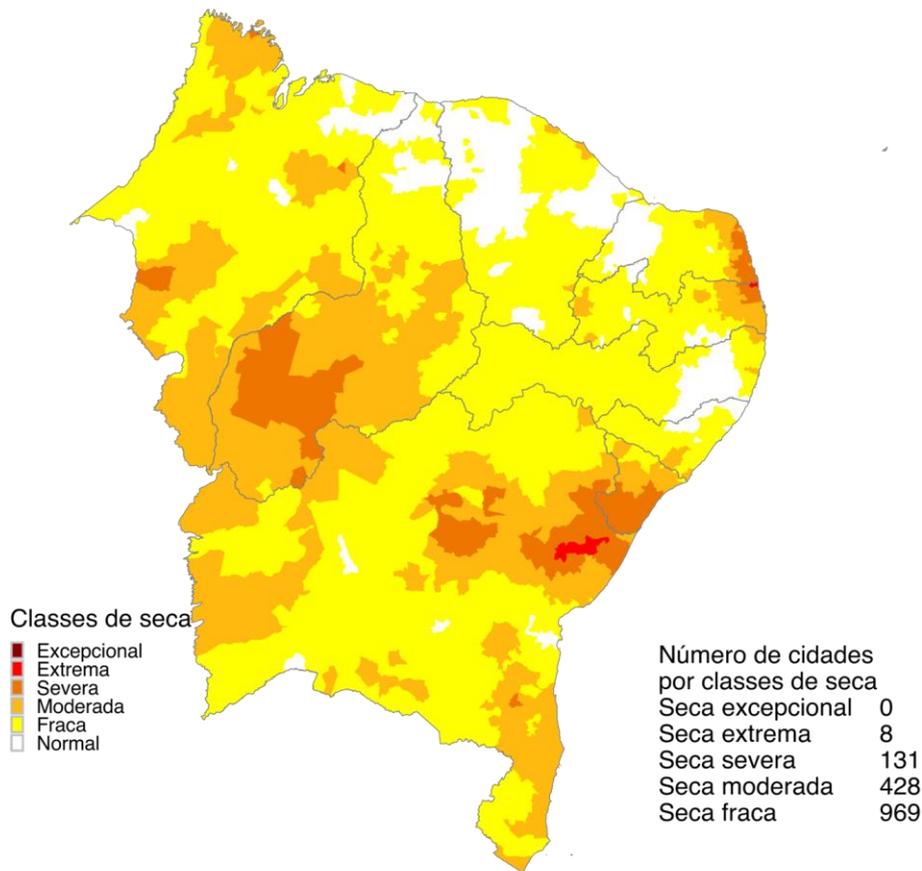


Outubro 2023  
Índice Integrado de Seca (SPI3, VHI, US)  
Dados: CPTEC/INPE - NOAA - NASA / Preparação: Cemaden/MCTI

Outubro 2023  
Índice Integrado de Seca (SPI6, VHI, US)  
Dados: CPTEC/INPE - NOAA - NASA / Preparação: Cemaden/MCTI

## ÍNDICE INTEGRADO DE SECA - IIS

(SPI1 + VHI + AUS): OUTUBRO/2023



**ESTIMATIVA DE PESSOAS AFETADAS NO NEB**

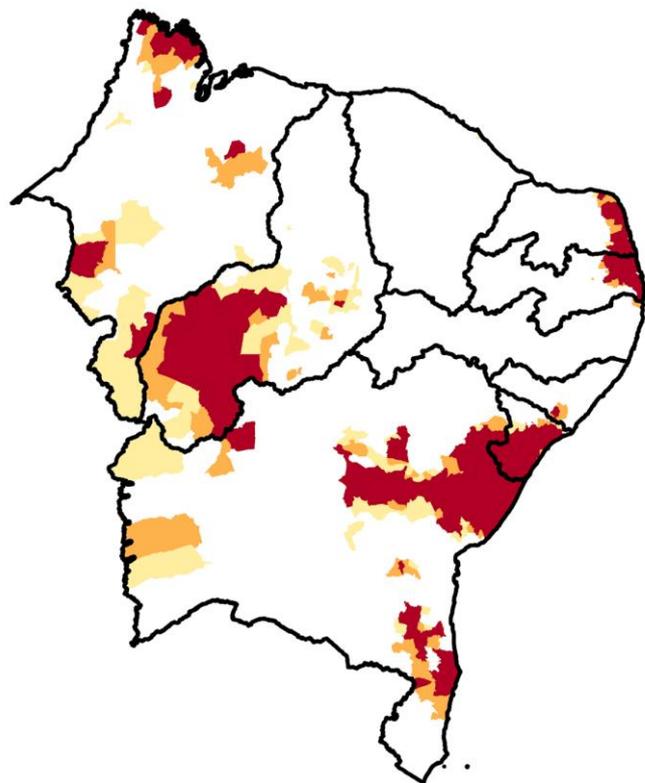
**124.670 SECA EXTREMA**

**5.039.331 SECA SEVERA**

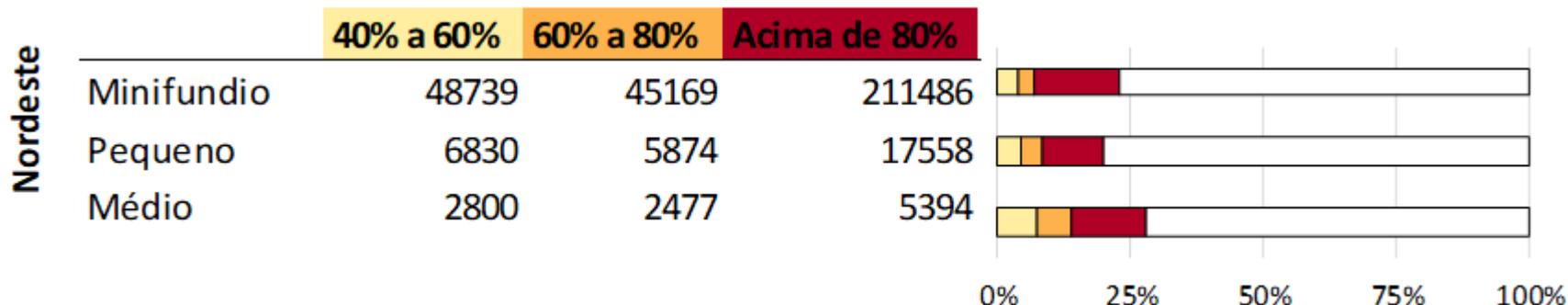
Outubro 2023  
Índice Integrado de Seca (SPI1, VHI, US)  
Dados: CPTEC/INPE - NOAA - NASA / Preparação: Cemaden/MCTI

Fonte: Estimativa população afetada IIS-01, Dados de população Censo 2022 (IBGE, 2023).

## ÁREAS DE PASTAGENS E AGRÍCOLAS AFETADAS PELA SECA Nov/23

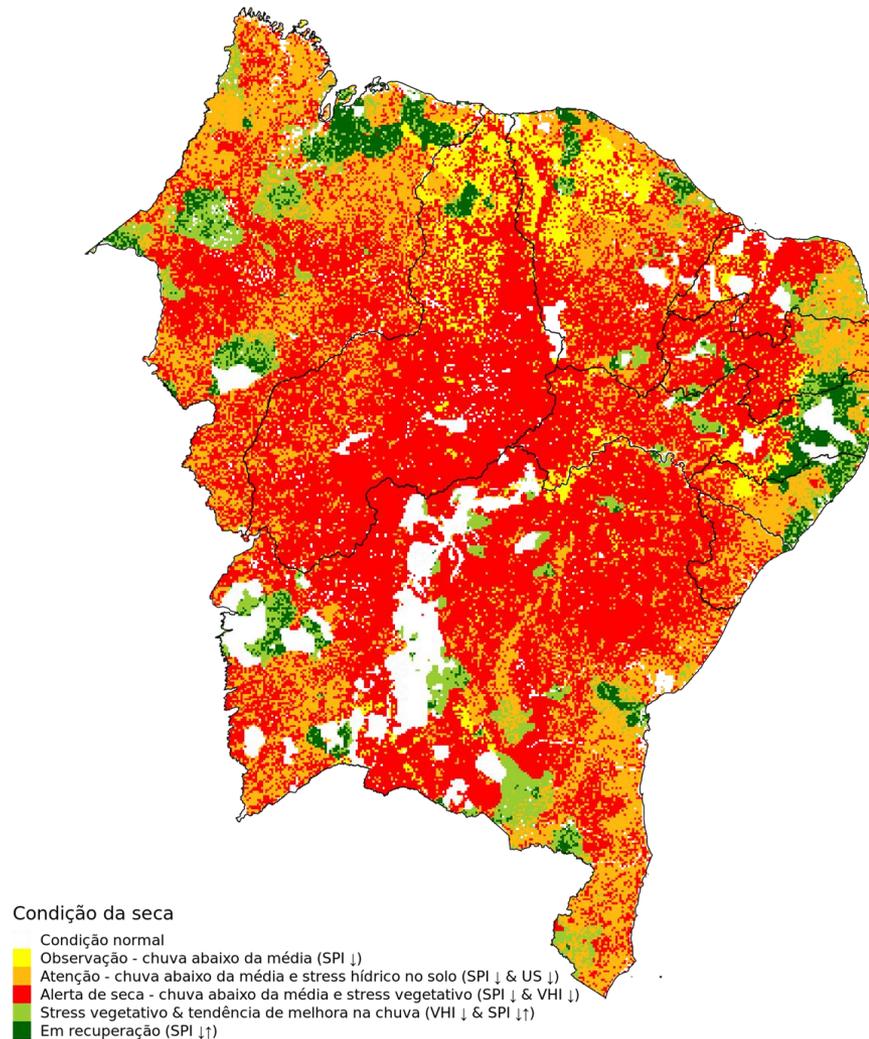


UF	40 a 60%	60 - 80%	> 80%
AL	95		4
BA	260	21	25
MA	178	10	13
PB	174		6
PE	184		1
PI	162	23	14
RN	128	2	5
SE	15	4	4

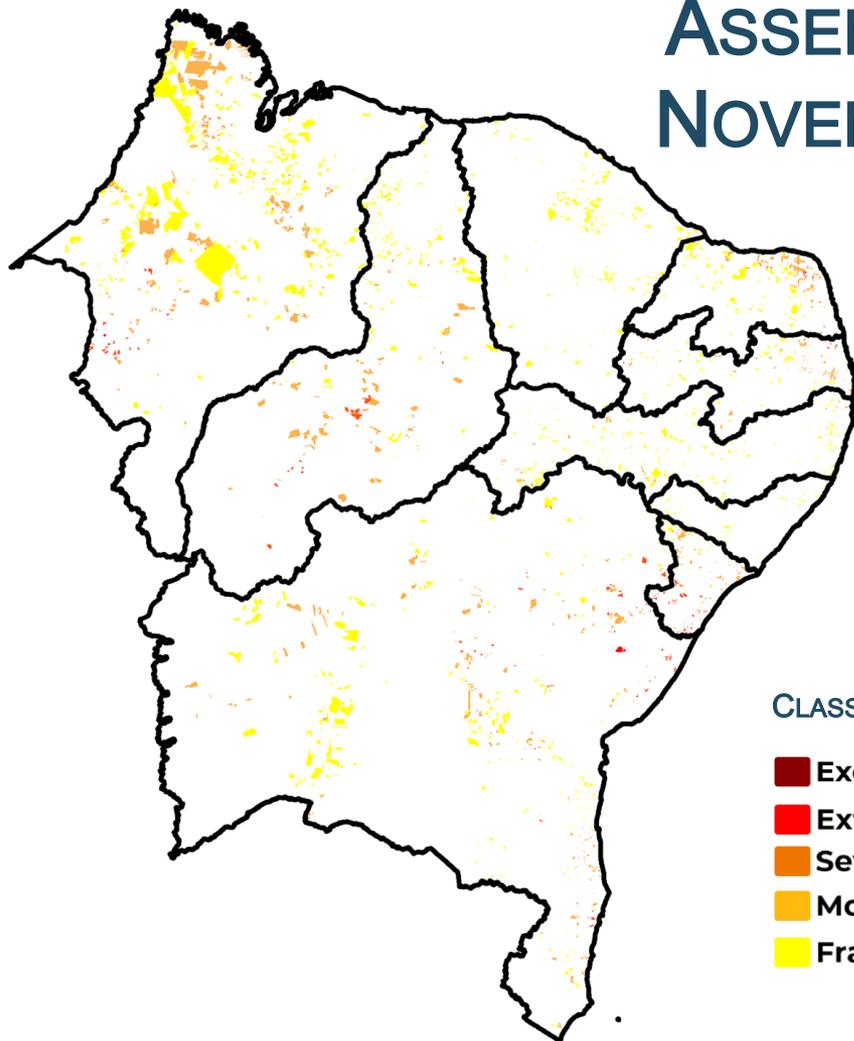


## PROGRESSÃO DAS CONDIÇÕES DE SECA (PCS)

Propagação Incremental das Condições de Seca (PICS)



## ÍNDICE INTEGRADO DE SECA (IIS-01) EM PROJETOS DE ASSENTAMENTO: NOVEMBRO 2023



CLASSE DE SECA

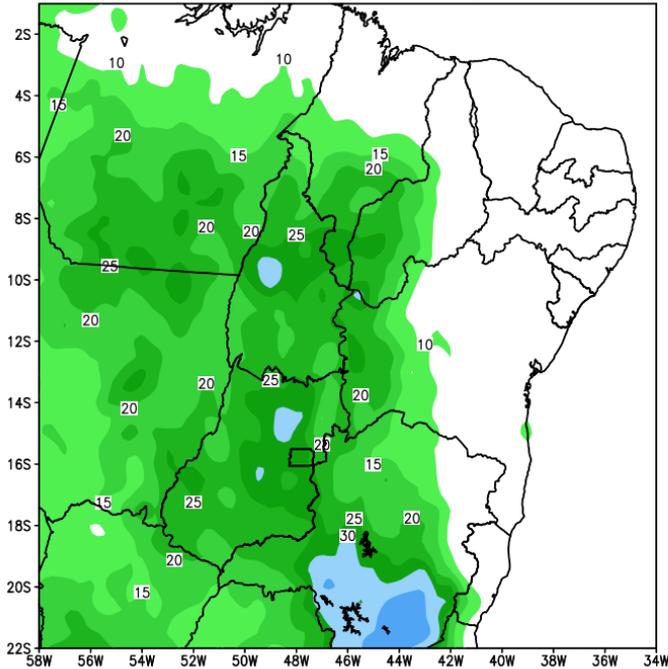
- Excepcional
- Extrema
- Severa
- Moderada
- Fraca

NÚMERO DE FAMÍLIAS EM PROJETO DE ASSENTAMENTO POR CATEGORIA DE SECA

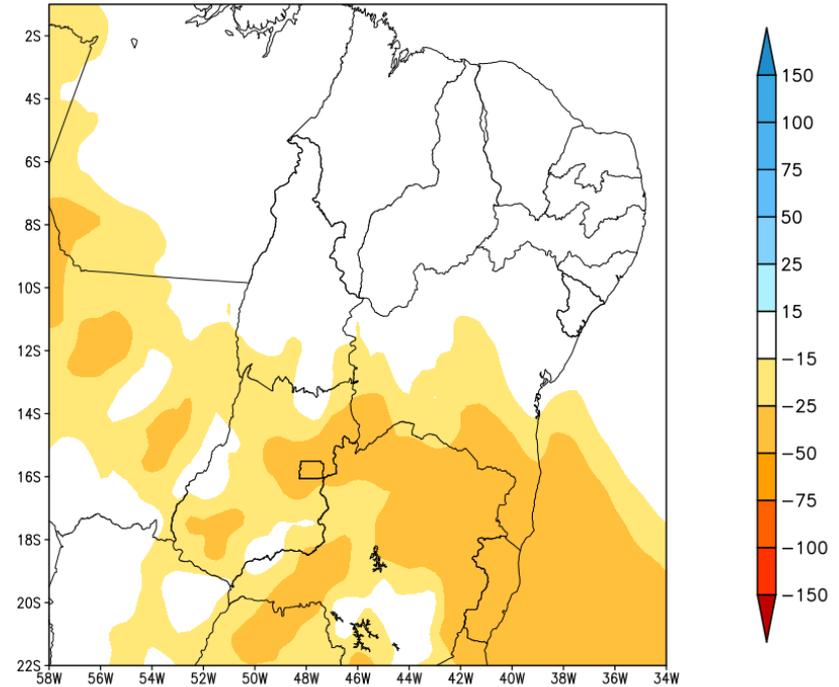
	Extrema	Severa	Moderada
AL			16
BA	6	120	744
CE			4
MA	4	57	736
PB		21	348
PE			128
PI	2	39	300
RN		12	336
SE	8	180	288

## Tendência de chuva para os próximos 7 dias

GEFS / BRASIL\_NE  
Precipitação acumulada 1aSem (mm)  
Previsão das 00Z dia 16/11/2023

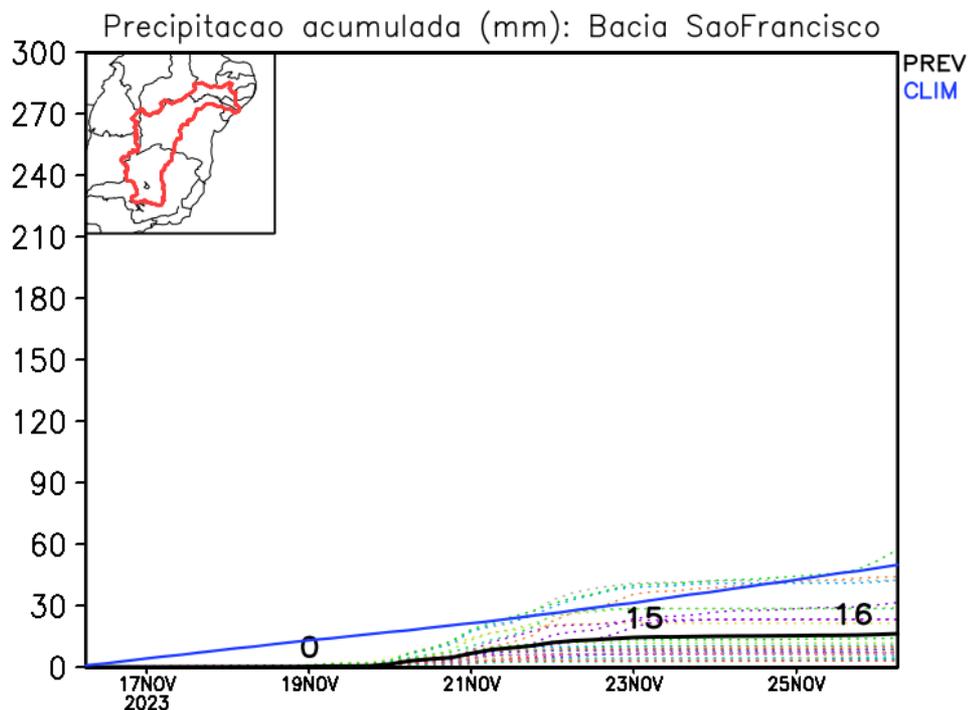
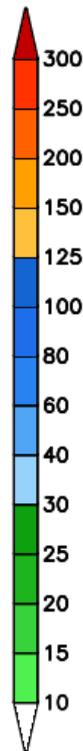
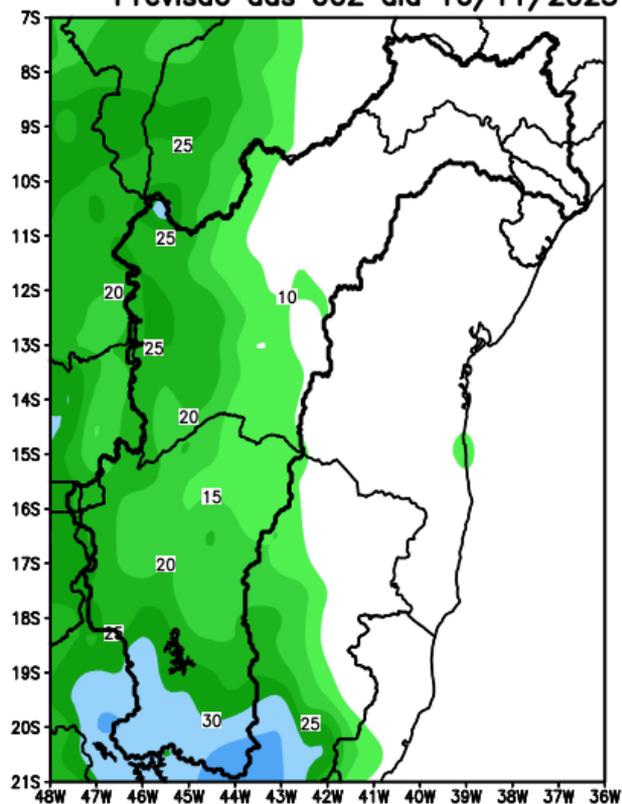


Anomalia de Precipitação BR\_NE (mm)  
Período: 2023111600 a 2023112300



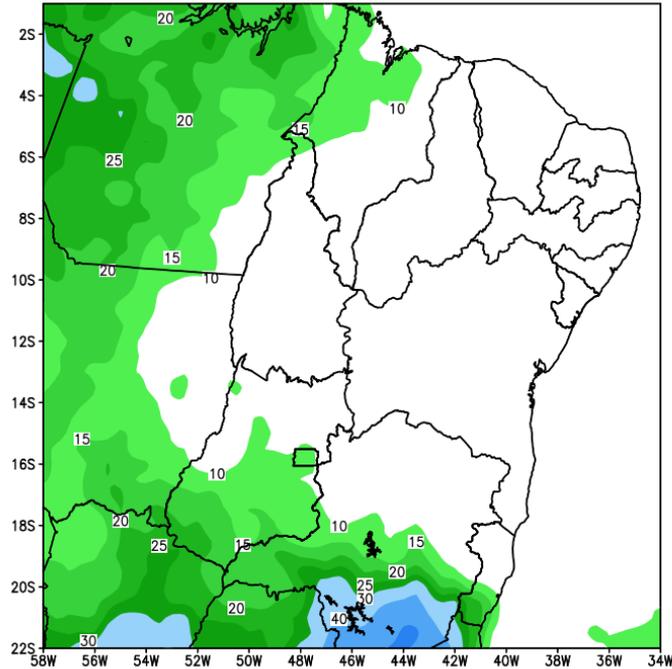
## Tendência de chuva para a bacia do rio São Francisco

GEFS / Bacia do Rio Sao Francisco  
Precipitacao acumulada em 7 dias (mm)  
Previsao das 00Z dia 16/11/2023

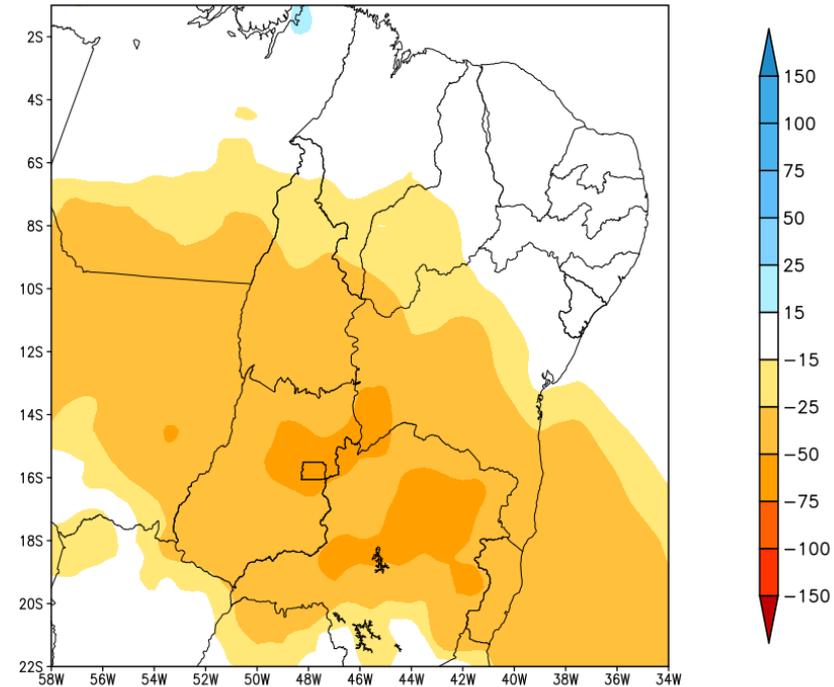


## Tendência de chuva para a segunda semana

GEFS / BRASIL\_NE  
Precipitação acumulada 2aSem (mm)  
Previsão das 00Z dia 16/11/2023

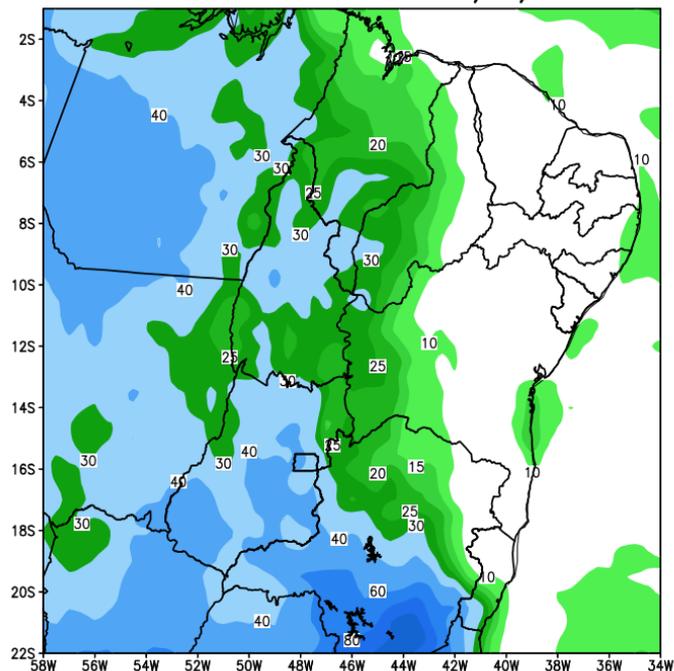


Anomalia de Precipitação BR NE (mm)  
Período: 2023112400 a 2023113000

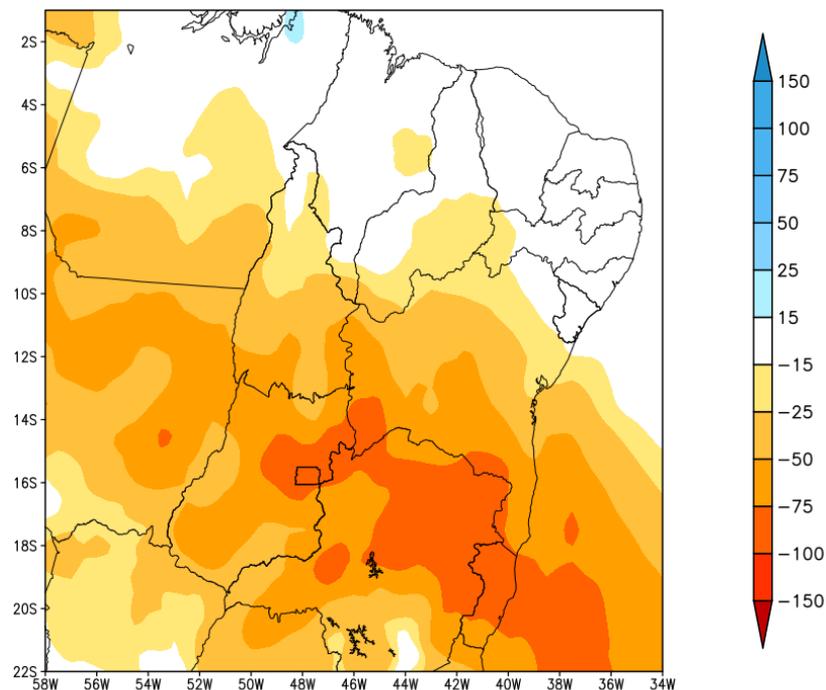


## Tendência de chuva para as próximas duas semanas

GEFS / BRASIL\_NE  
Precipitação acumulada 14 dias (mm)  
Previsão das 00Z dia 16/11/2023



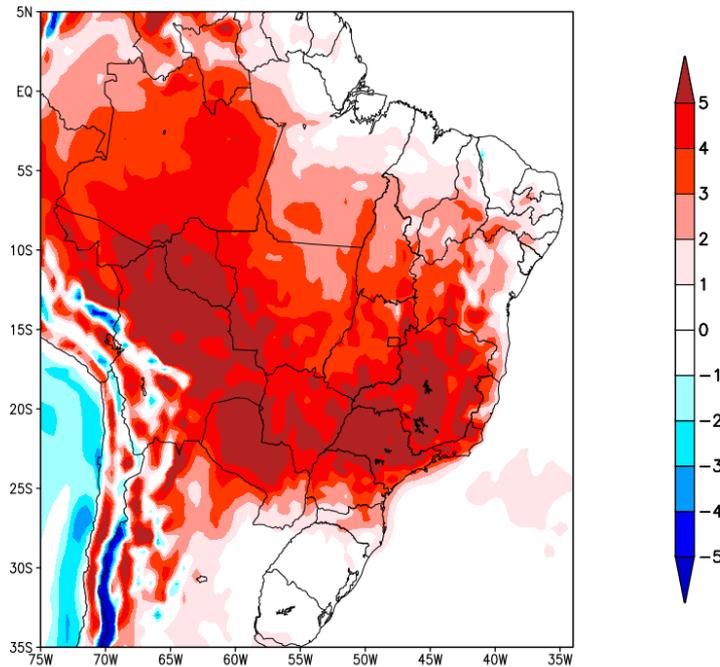
Anomalia de Precipitação BR NE (mm)  
Período: 2023111600 a 2023113000



## Tendência da Temperatura para as próximas duas semanas

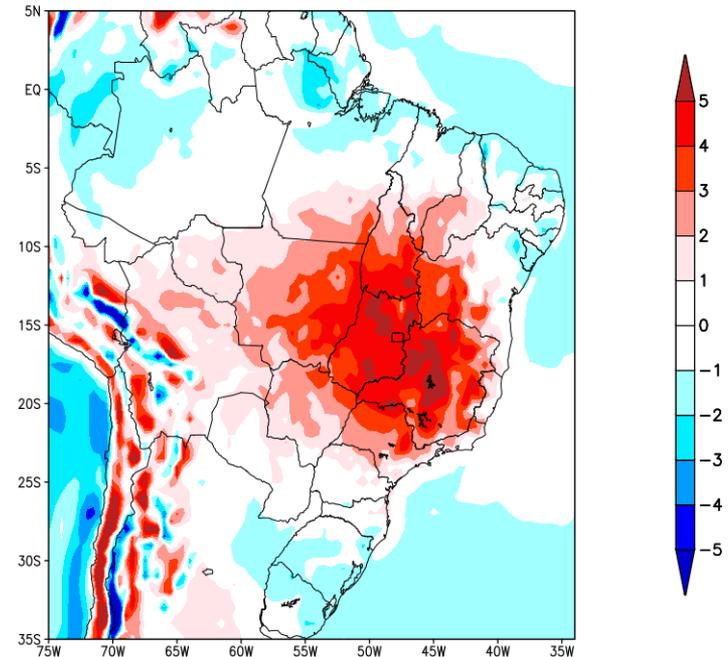
16-23/11

Anomalia de Temperatura BR (C)  
Período: 2023111600 a 2023112300



24-30/11

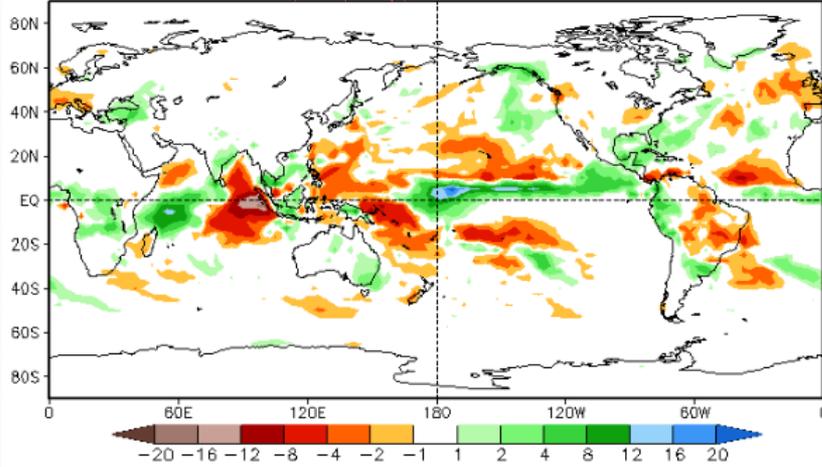
Anomalia de Temperatura BR (C)  
Período: 2023112400 a 2023113000



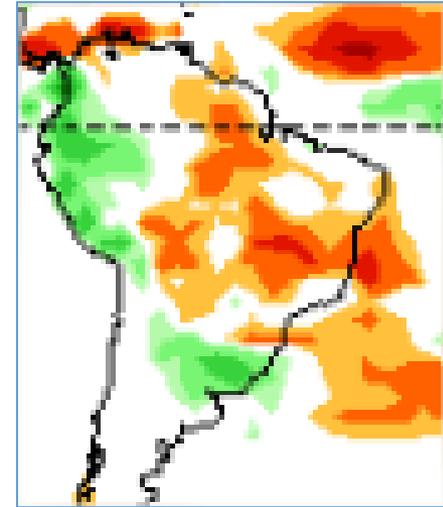
## Tendência 3a e 4a semanas

Week 3 Anomalies (mm/day)

29Nov2023–5Dec2023

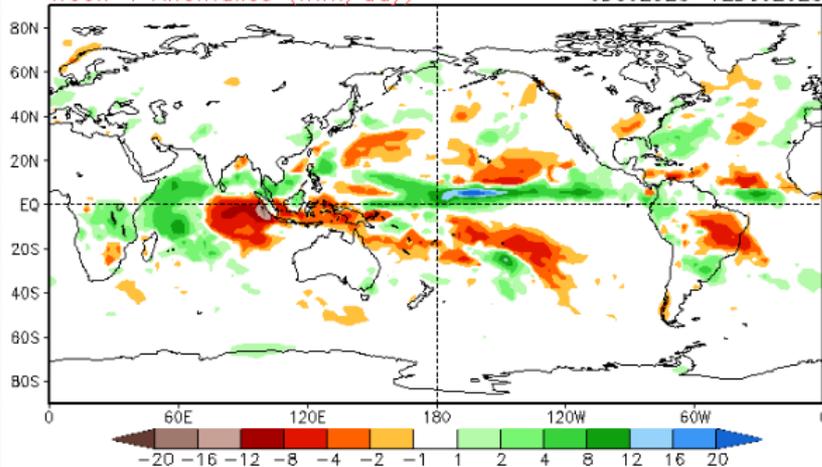


29/11-05/12

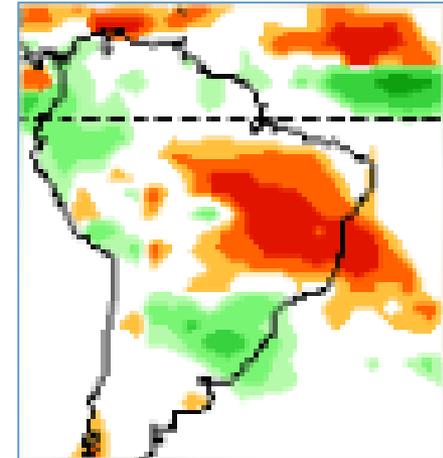


Week 4 Anomalies (mm/day)

6Dec2023–12Dec2023



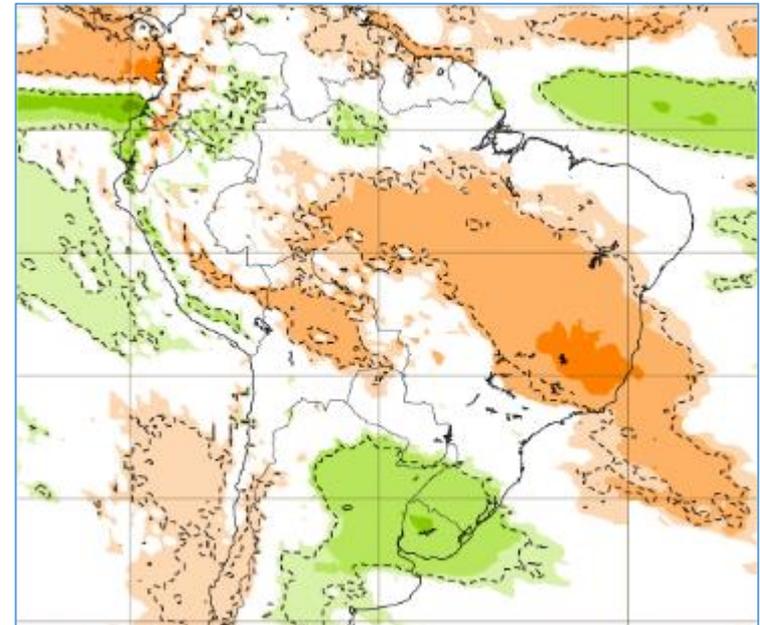
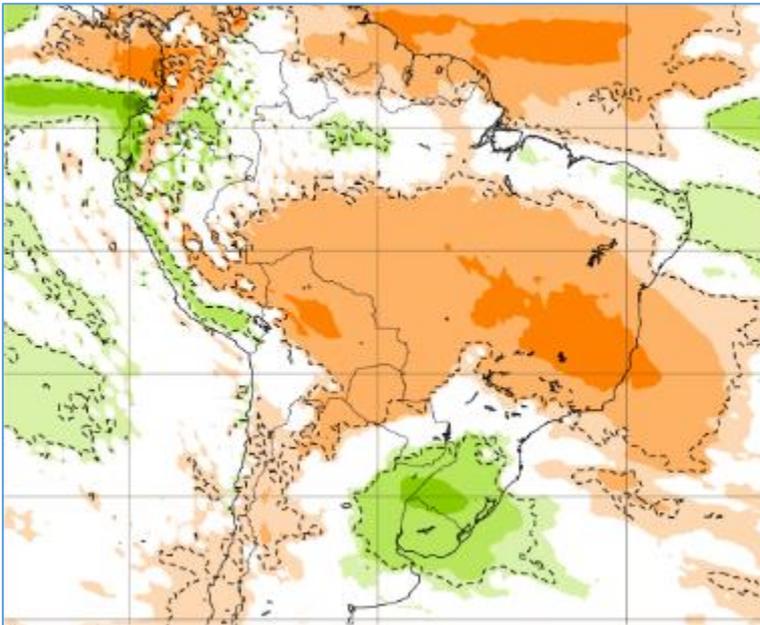
06-12/12



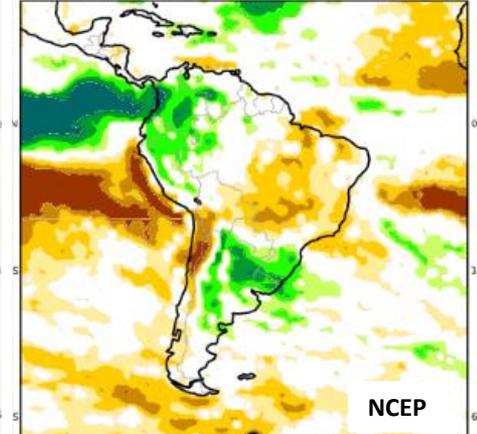
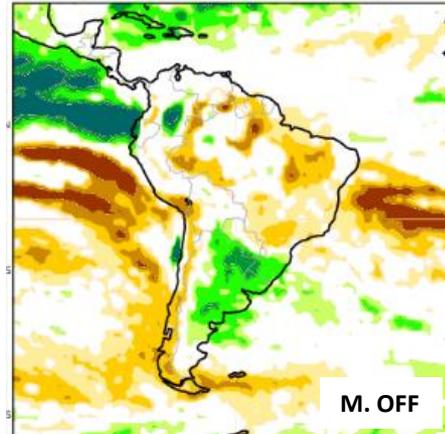
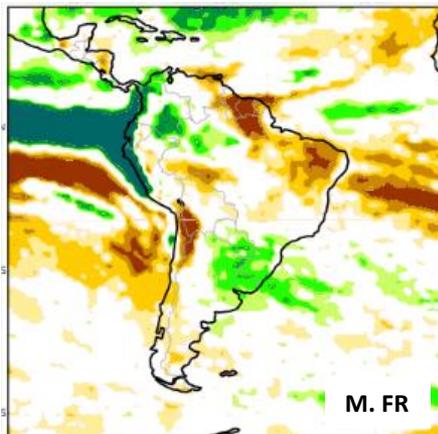
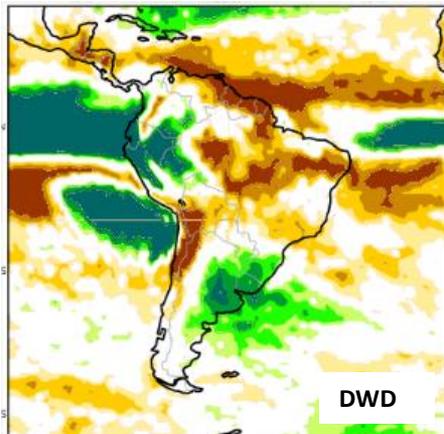
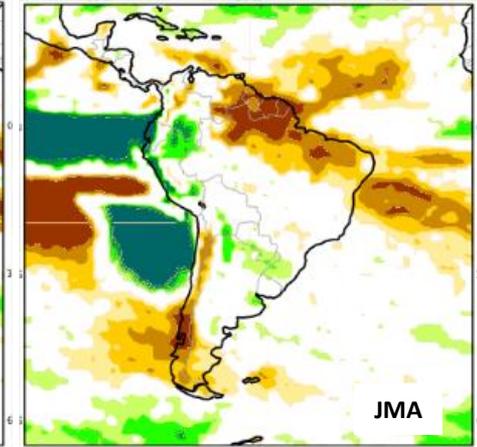
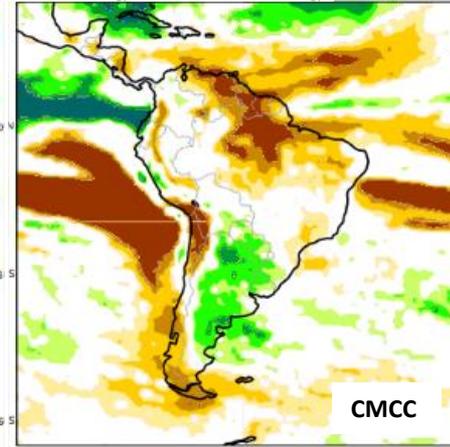
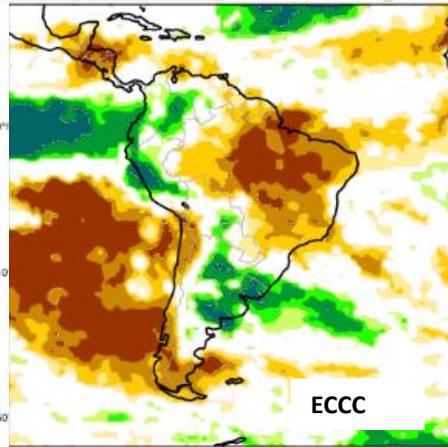
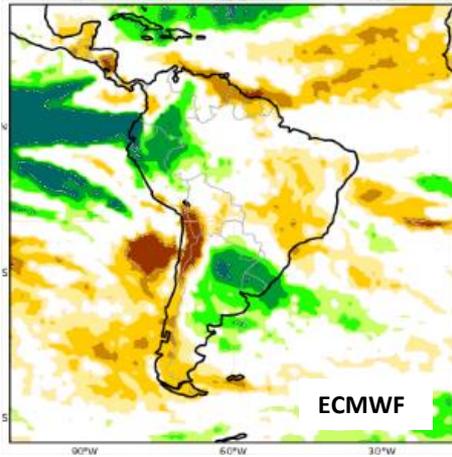
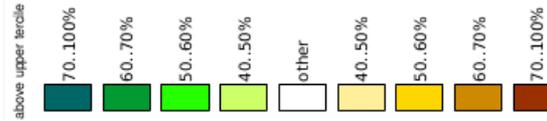
## Tendência para 3<sup>a</sup> e 4<sup>a</sup> semanas

27/11-04/12

04-11/12

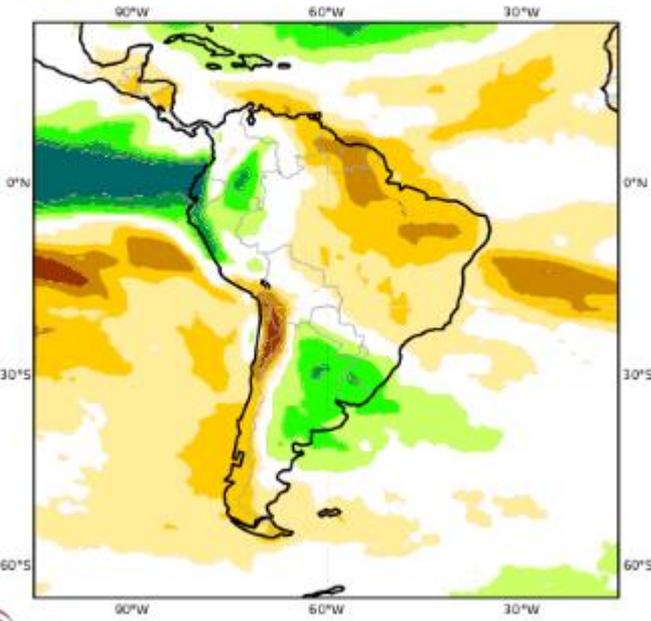


## Previsão Sazonal de Chuva DJF

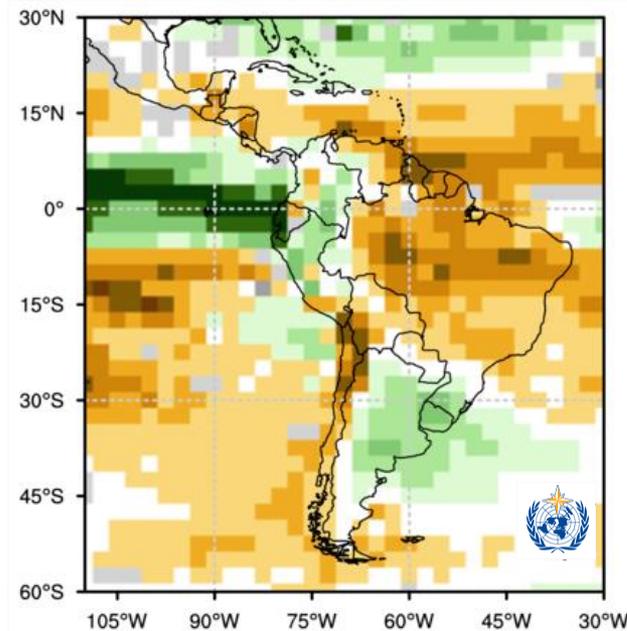


## Previsão Sazonal de Chuva Multi-Modelo para DJF

C3S multi-system seasonal forecast  
Prob(most likely category of precipitation)  
Nominal forecast start: 01/11/23  
Unweighted mean

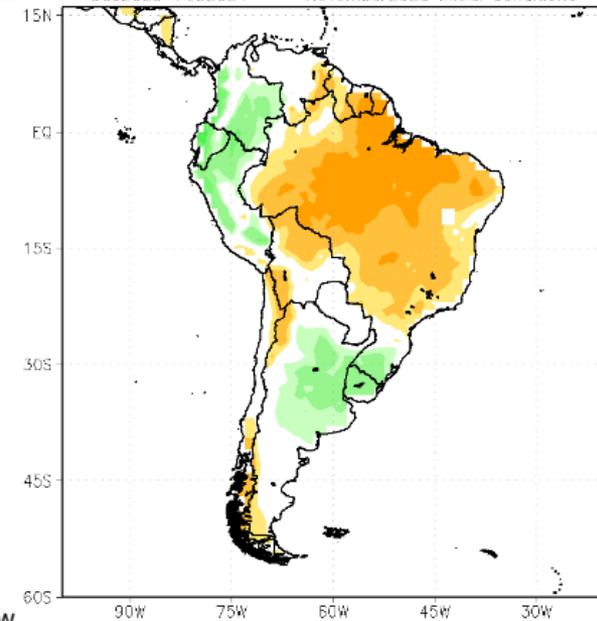


Modelos Europeus



Modelos da Organização  
Meteorológica Mundial

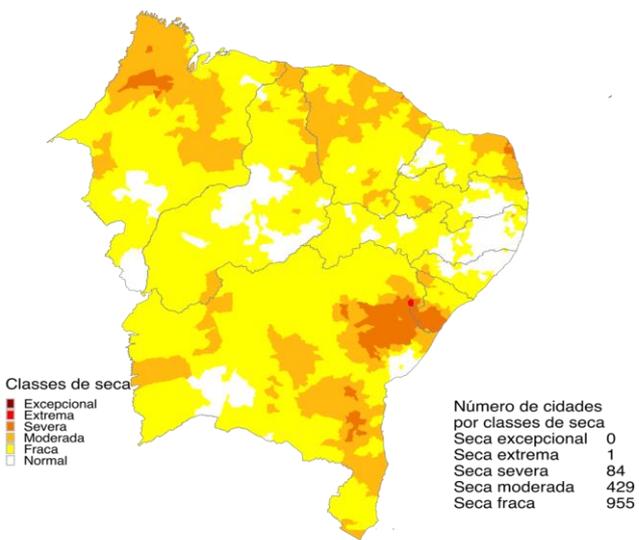
NMME Precipitation Anomalies (mm/day)  
Dec2023–Feb2024  
November2023 initial conditions



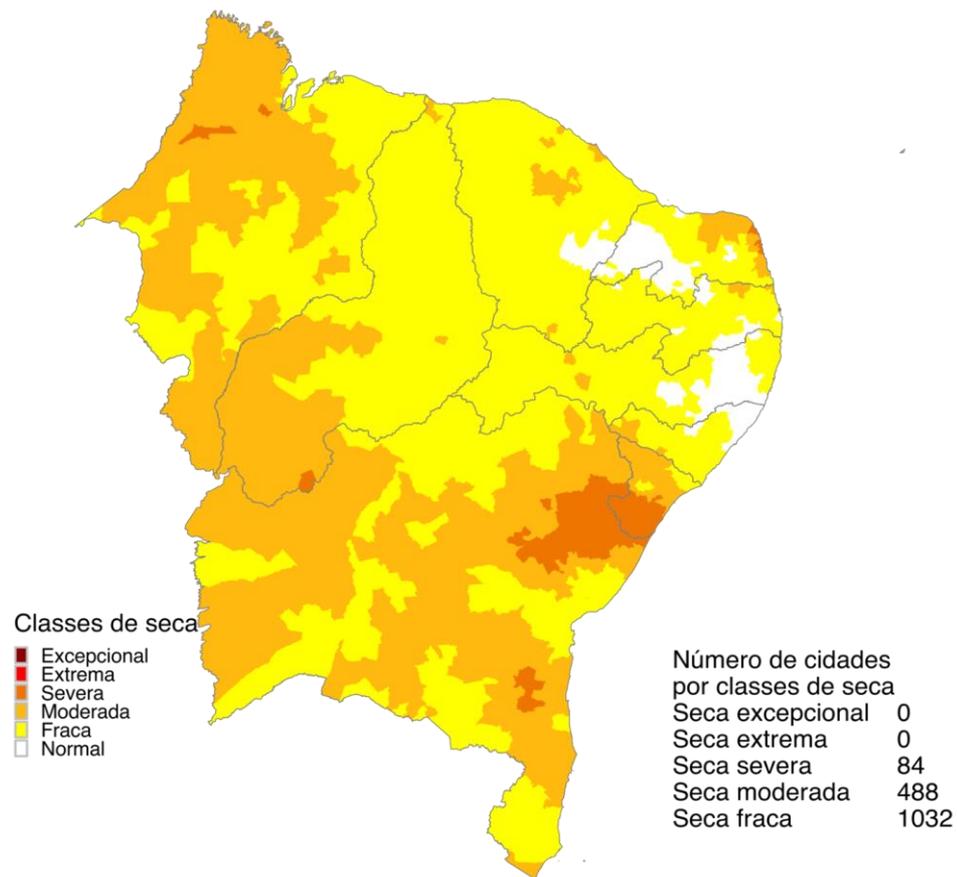
Modelos Americanos

## CENÁRIO IIS DEZEMBRO 2023

Atual



Outubro 2023  
Índice Integrado de Seca (SPI6, VHI, US)  
Dados: CPTEC/INPE - NOAA - NASA / Preparação: Cemaden/MCTI

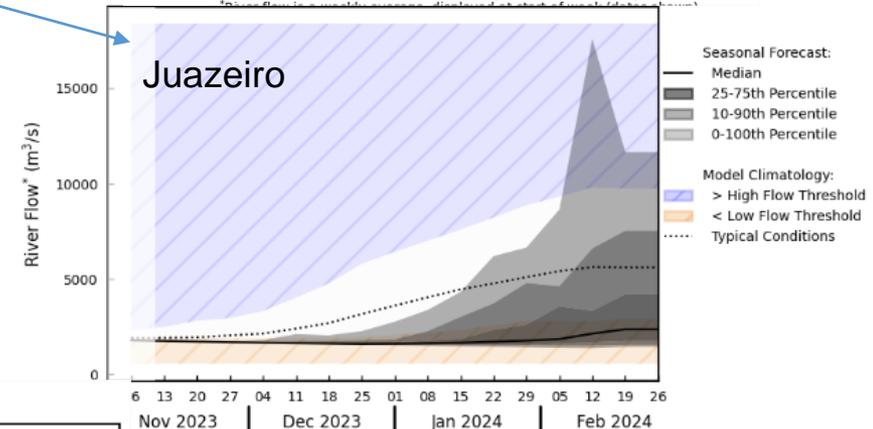
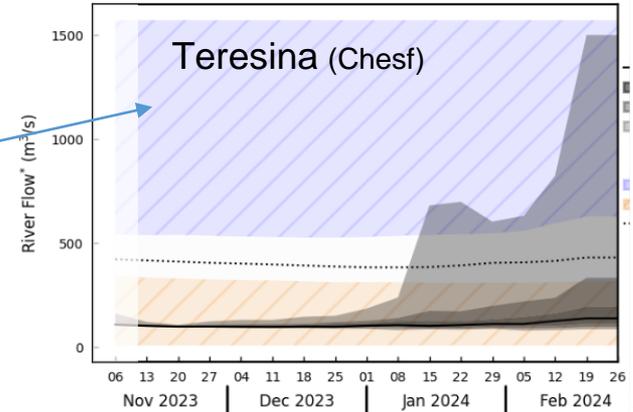


Dezembro 2023  
Índice Integrado de Seca (SPI6, VHI, US)  
Dados: CPTEC/INPE - NOAA - NASA / Preparação: Cemaden/MCTI

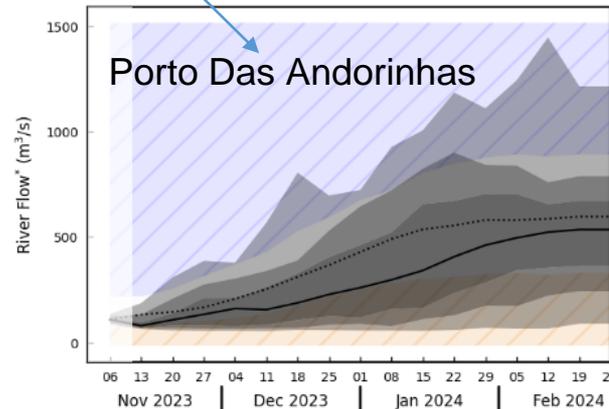
# Monitoramento da situação da seca na Região Nordeste



Hydrograph



Hydrograph



Fonte: Glofas

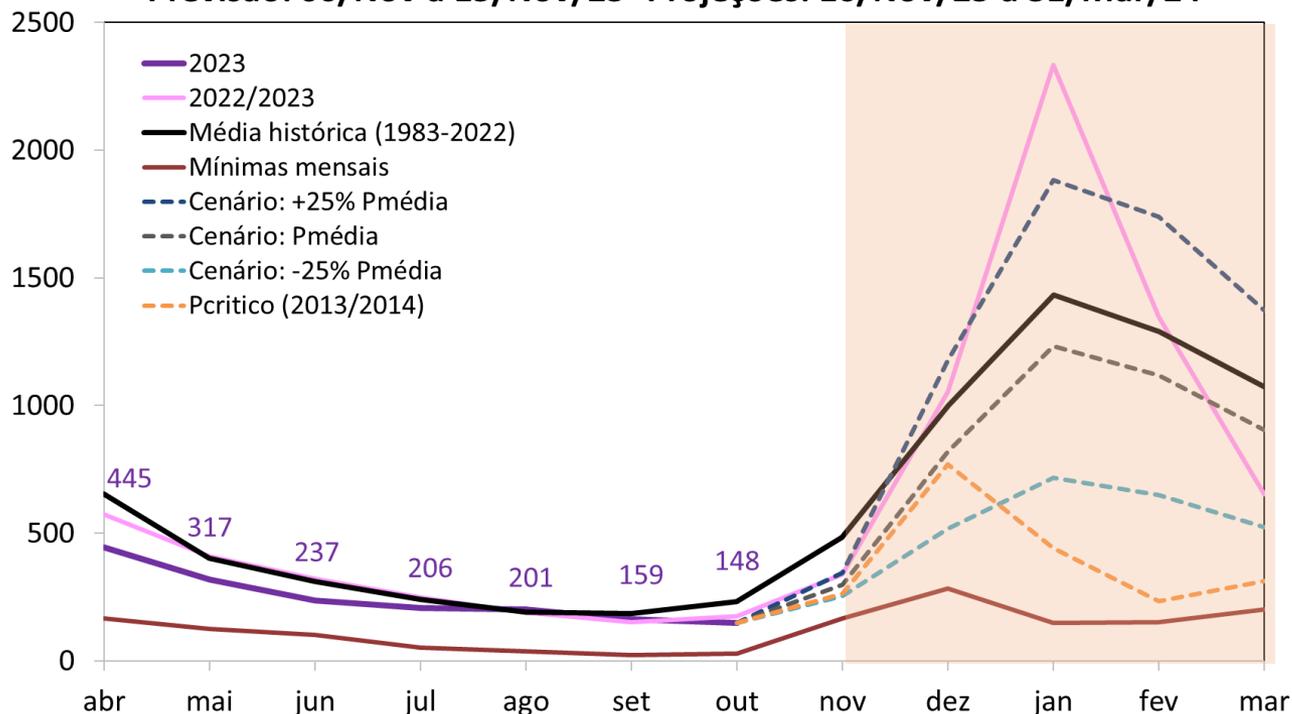


## UHE Três Marias: Projeções de Vazão (modelo PDM/CEMADEN)

Histórico e simulação da vazão natural média mensal

UHE Três Marias - Rio São Francisco

Previsão: 06/Nov a 15/Nov/23- Projeções: 16/Nov/23 a 31/Mar/24



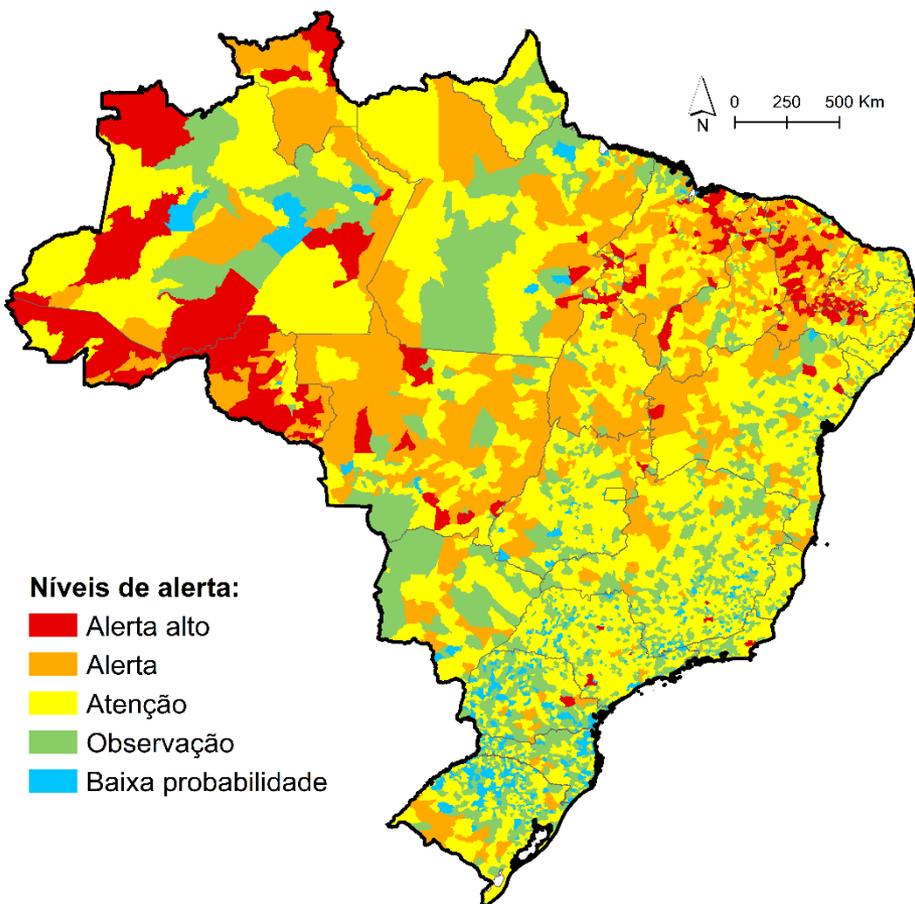
**Novembro-Março**

**MLT: 1056 m³/s**

Vazão	% MLT
<b>1303 m³/s</b>	<b>123%</b>
875 m³/s	83%
<b>533 m³/s</b>	<b>50%</b>
<b>405 m³/s</b>	<b>38%</b>

## Comparação entre 2022 e 2023

Previsão de alertas NDJ 2023



Previsão de alertas NDJ 2022

