



# CEMADEN

Centro Nacional de Monitoramento e  
Alertas de Desastres Naturais

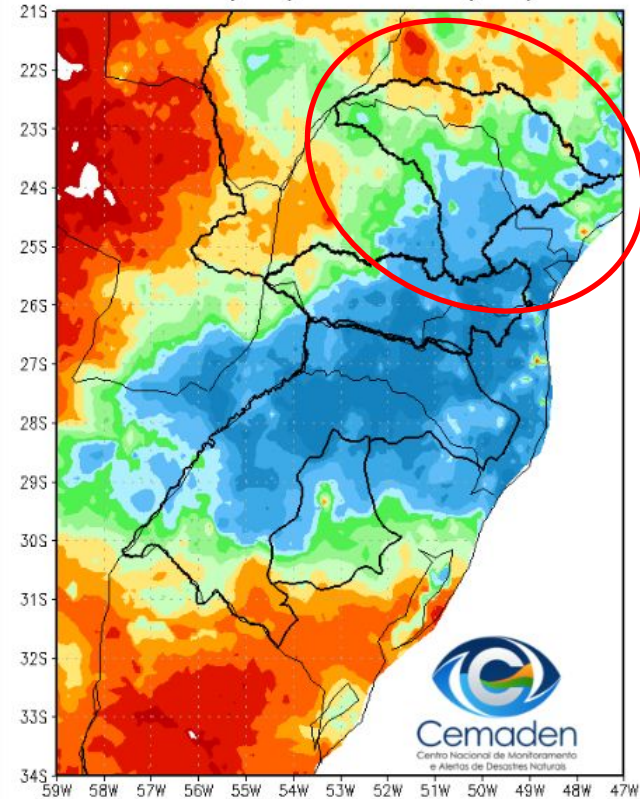
## Monitoramento, Previsões e Projeções para a Bacia do Rio Paranapanema

Outubro de 2023

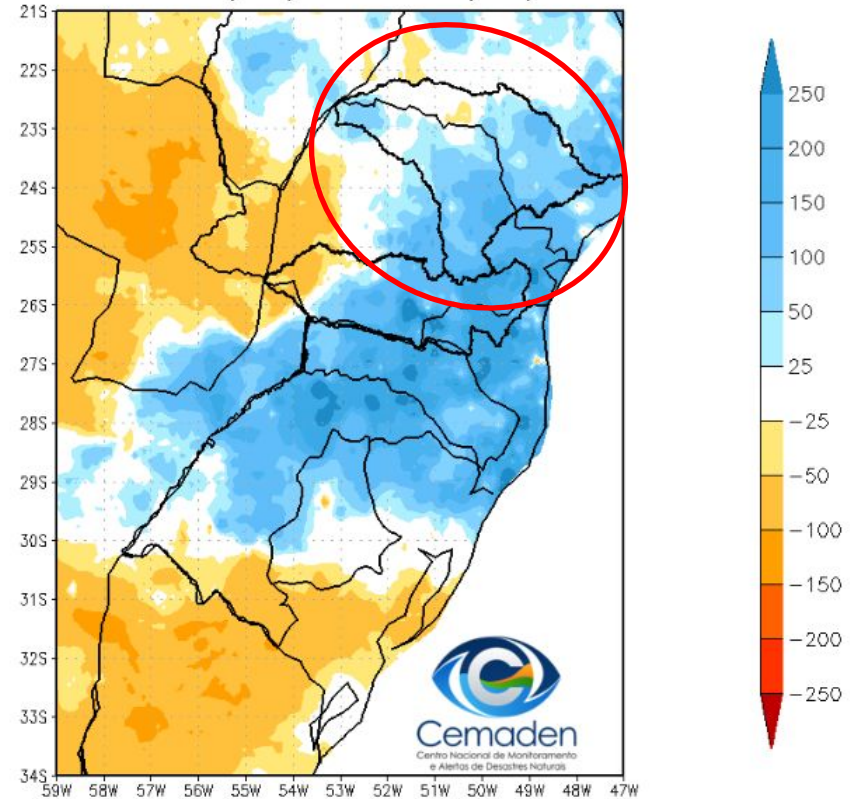


# Precipitação acumulada Ano Hidrológico

Precipitação Acumulada (mm) A.S.  
Período: 01/10/2023 a 25/10/2023

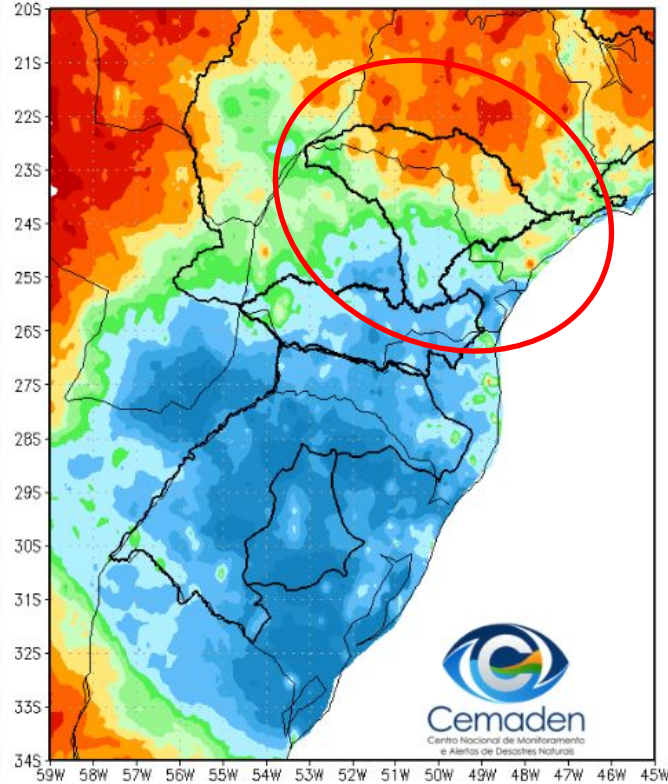


Anomalia de Precipitação (mm) A.S.  
Período: 01/10/2023 a 25/10/2023

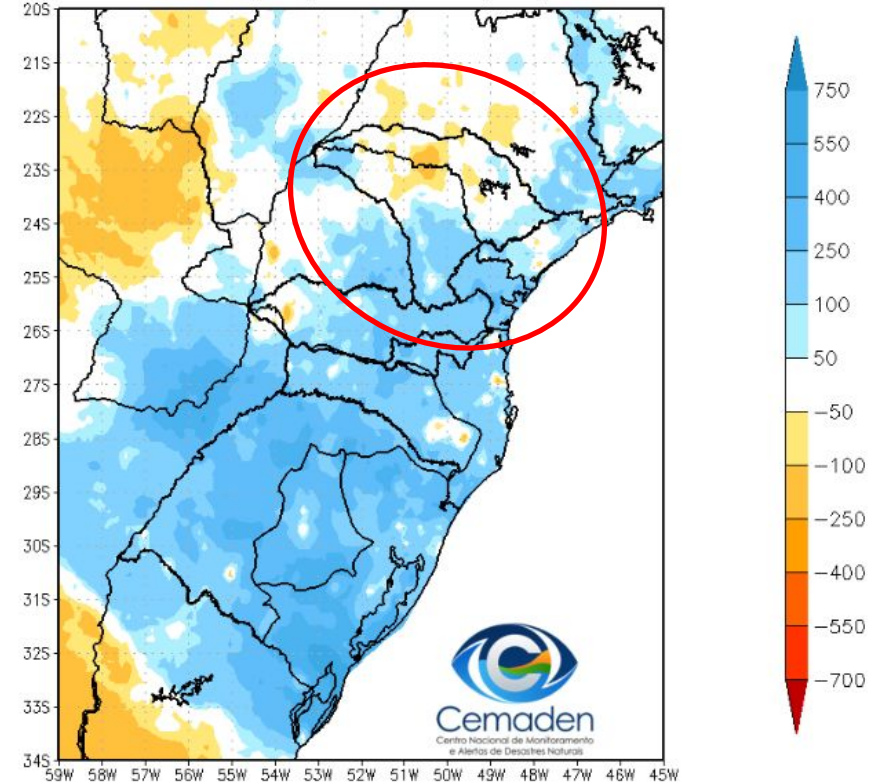


# Precipitação acumulada AGOSTO-SETEMBRO-OUTUBRO

Precipitação Acumulada (mm) A.S.  
Período: 27/07/2023 a 25/10/2023



Anomalia de Precipitação (mm) A.S.  
Período: 27/07/2023 a 25/10/2023



# Monitoramento da situação da chuva e da seca na bacia do rio Paranapanema

DIAGNÓSTICO: OUTUBRO/2023



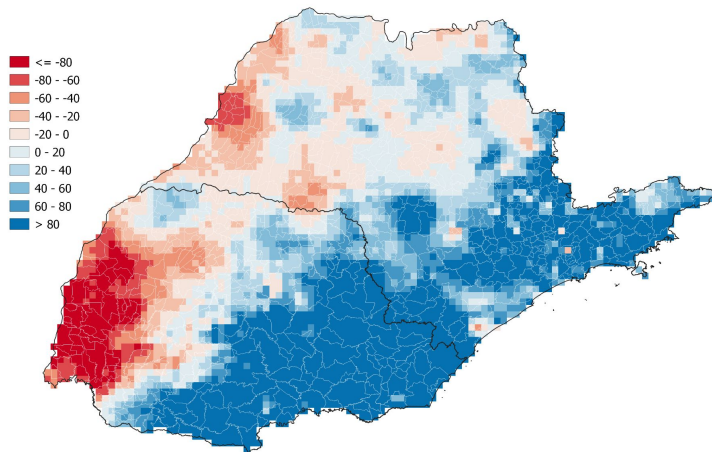
MINISTÉRIO DA  
CIÊNCIA, TECNOLOGIA  
E INOVAÇÕES



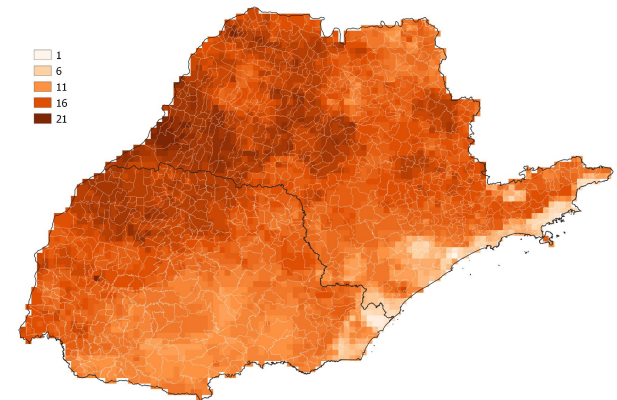


## PRECIPITAÇÃO: OUTUBRO 2023 (ATÉ 24/10)

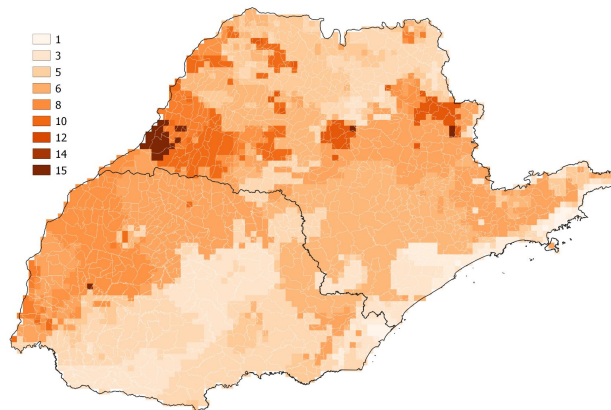
### Anomalia (mm)



### Total de dias sem chuva



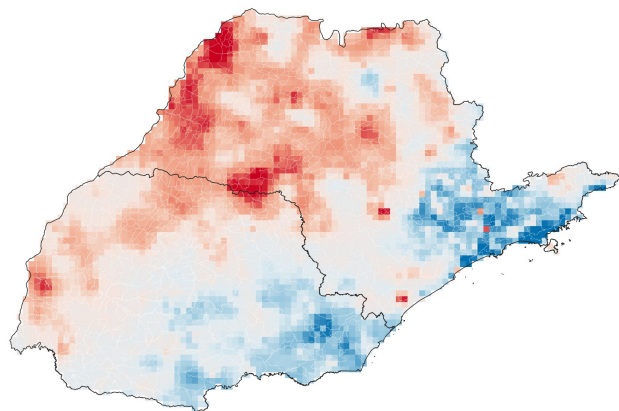
### Máximo de dias consecutivos sem chuva



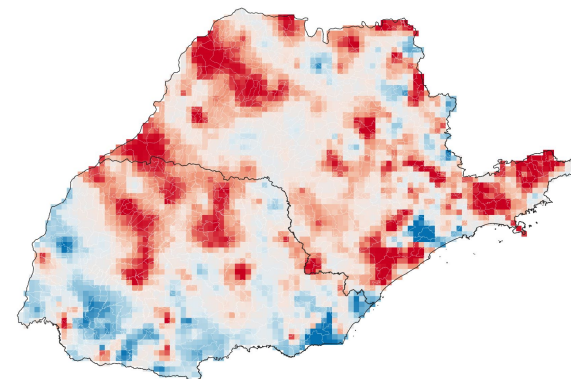


## SPI: OUTUBRO 2023

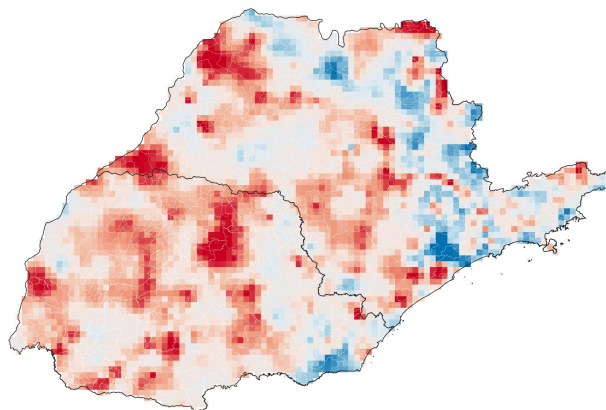
### SPI03



### SPI24



### SPI12

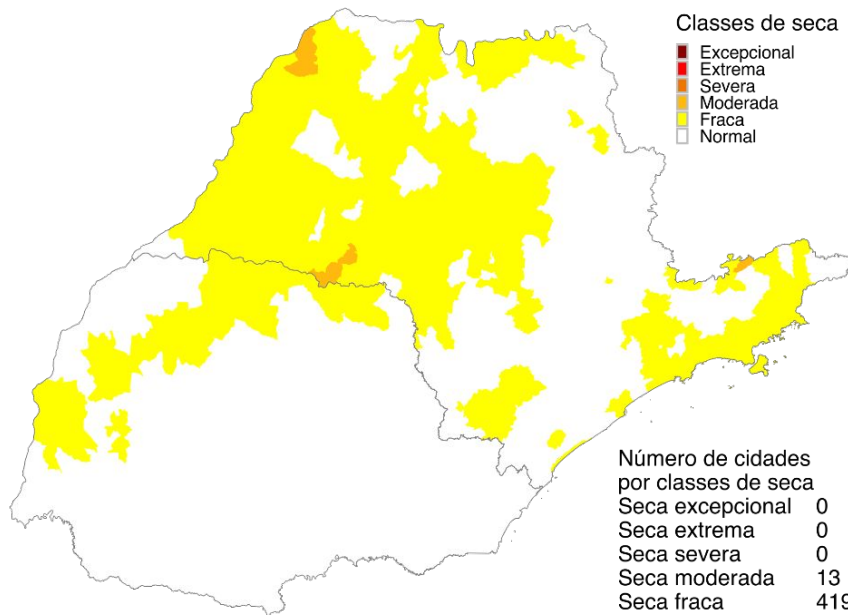




## ÍNDICE INTEGRADO DE SECA - IIS

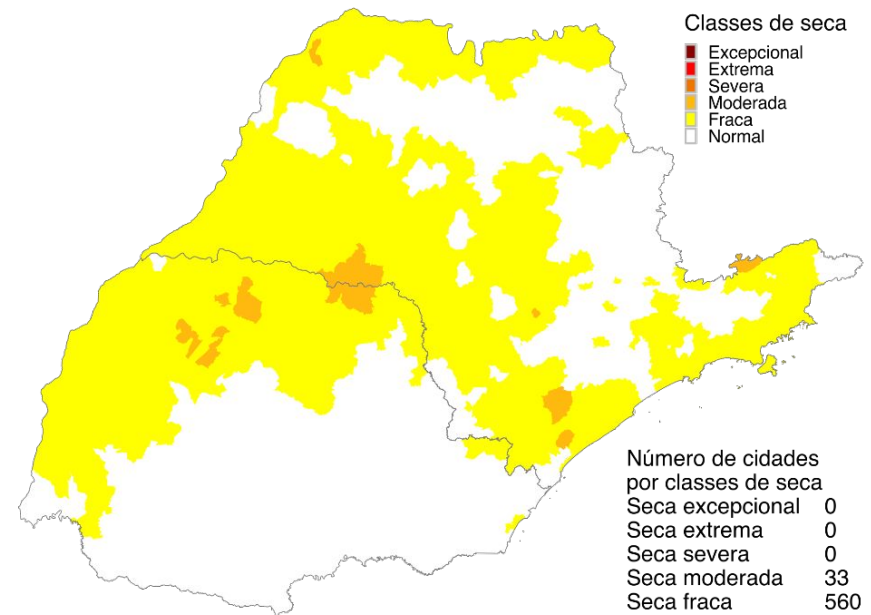
(SPI3 E 6 + VHI + AUS): OUTUBRO/2023

**IIS 3 MESES**



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

**IIS 6 MESES**

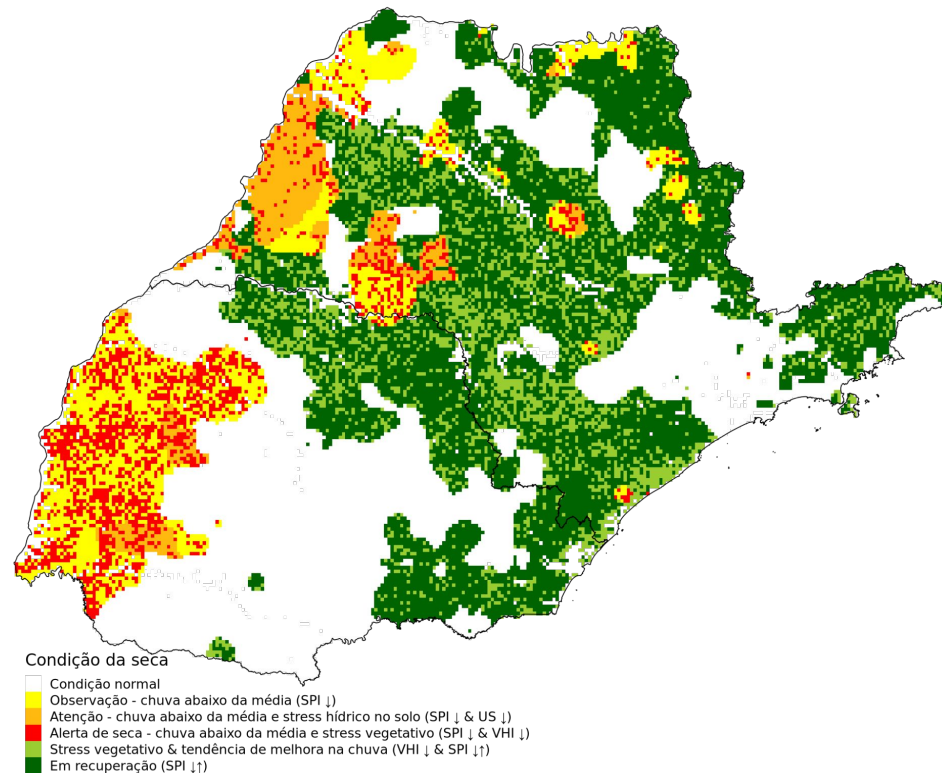


Outubro 2023  
Índice Integrado de Seca (SPI6, VHI, US)  
Dados: CPTEC/INPE - NOAA - NASA / Preparação: Cemaden/MCTI



# PROGRESSÃO INCREMENTAL DAS CONDIÇÕES DE SECA (PICS) OUTUBRO 2023 (ATÉ 25/10)

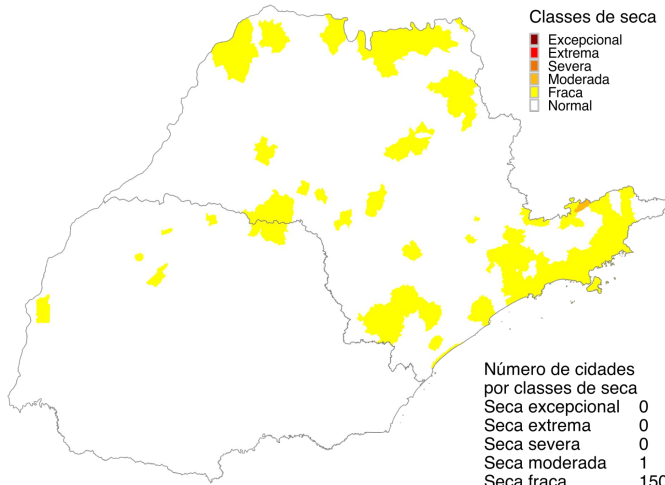
Propagação Incremental das Condições de Seca (PICS)  
Outubro 2023







## CHUVA 40% ACIMA DA MÉDIA



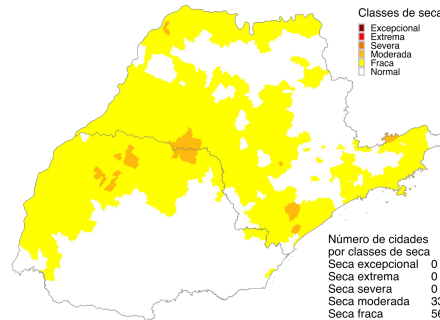
Novembro 2023  
Índice Integrado de Seca (SPI6, VHI, US)  
Cenário: Chuva +40%  
Dados: CPTEC/INPE - NOAA - NASA / Preparação: Cemaden/MCTI

## Novembro/23



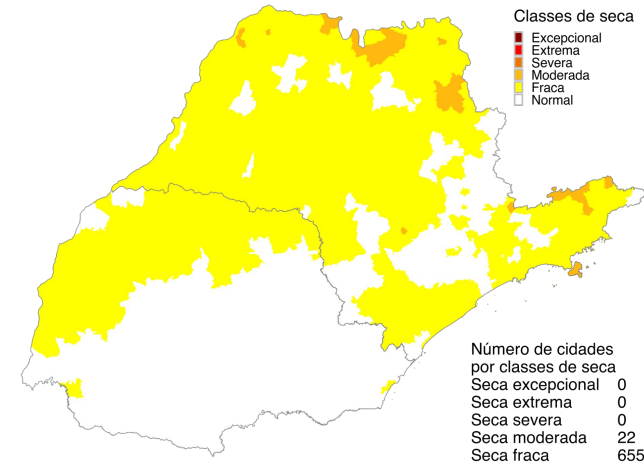
## IIS OBSERVADO (IIS6)

## Outubro/23



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

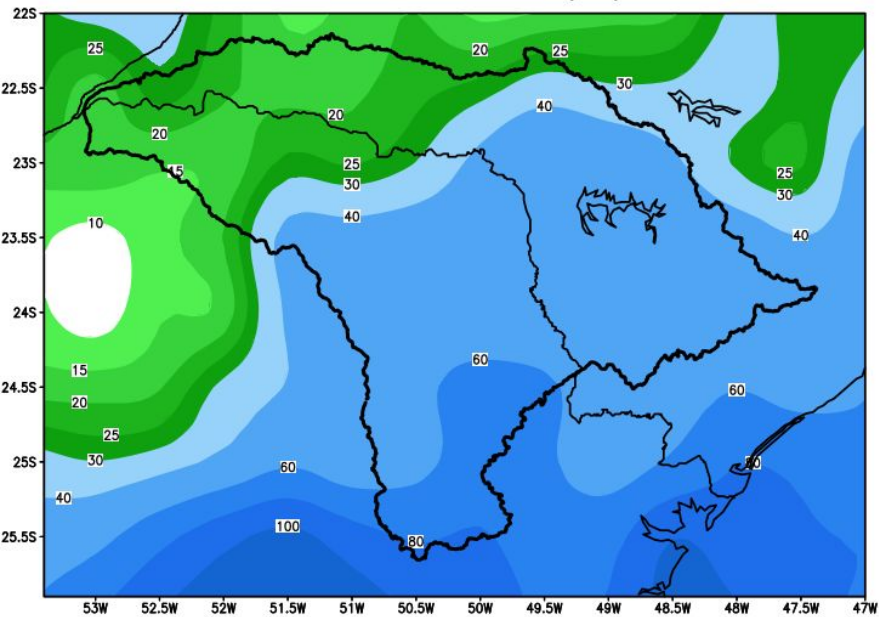
## CHUVA 40% ABAIXO DA MÉDIA



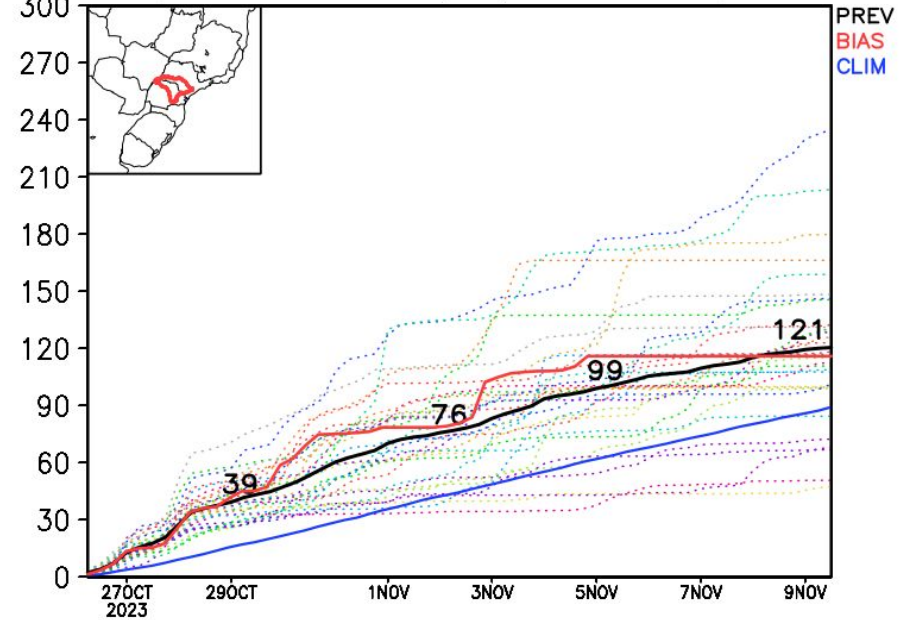
Novembro 2023  
Índice Integrado de Seca (SPI6, VHI, AUS)  
Cenário: Chuva -40%  
Dados: CPTEC/INPE - NOAA - NASA / Preparação: Cemaden/MCTI

# Previsão para a bacia do rio Paranapanema

GEFS\_BC / Bacia do Rio Paranapanema  
Prec. acumulada com correcao de vies em 14 dias (mm)  
Previsao das 00Z dia 26/10/2023

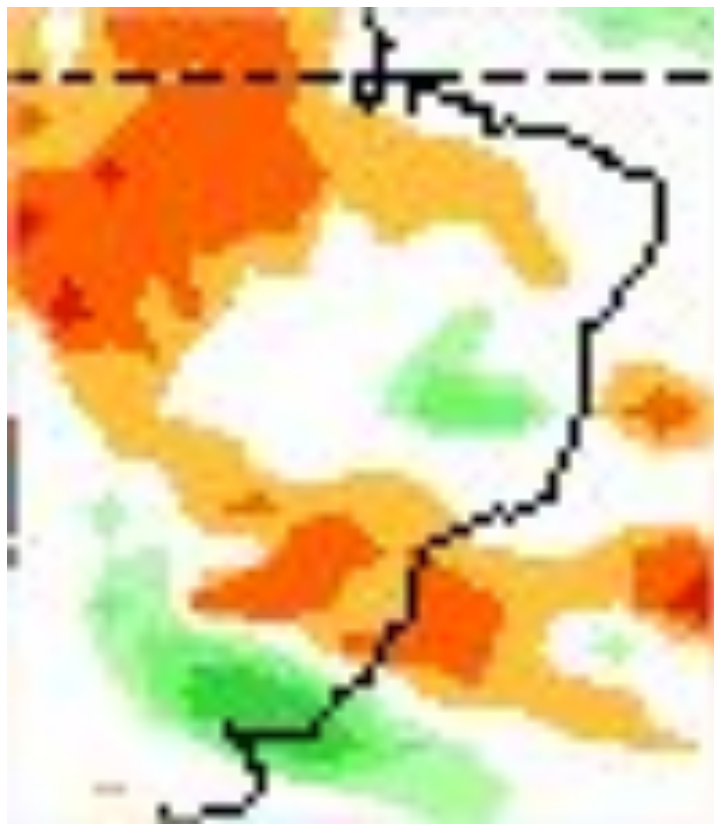


Precipitacao acumulada (mm): Bacia Paranapanema

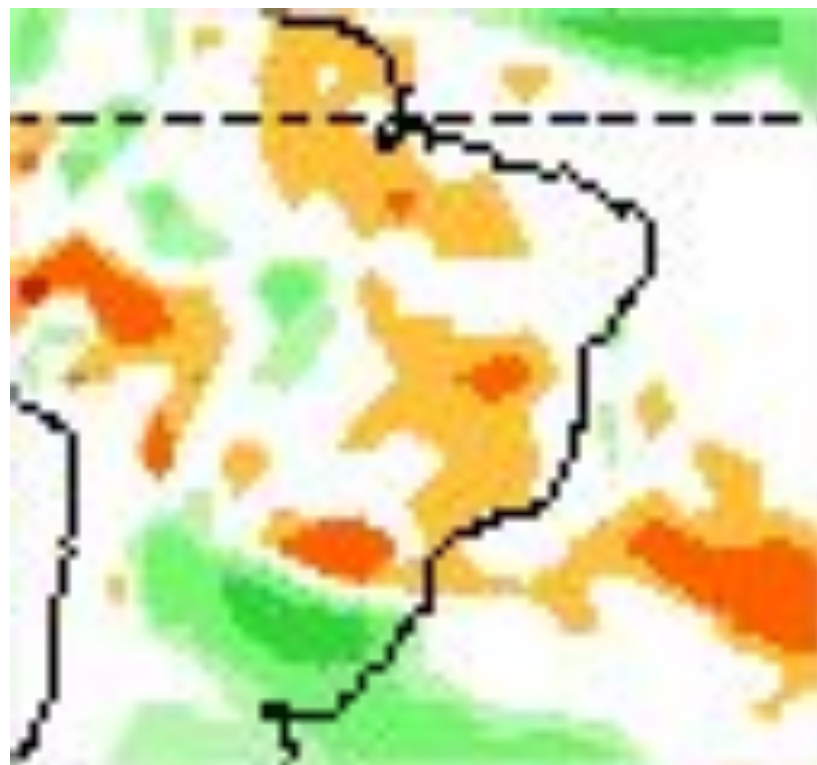


# Tendência 3a e 4a semanas

09 - 15 NOVEMBRO

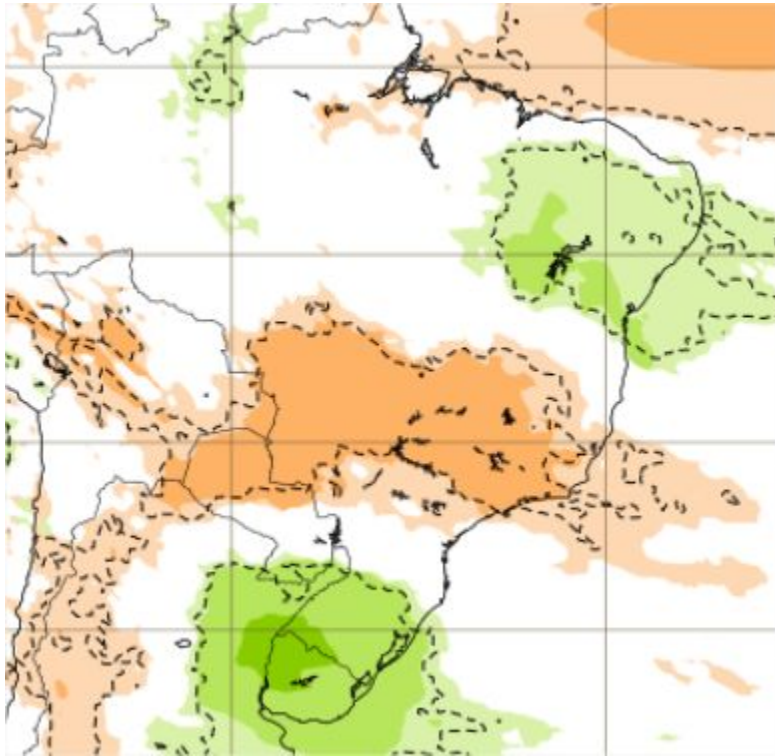


16 - 22 NOVEMBRO

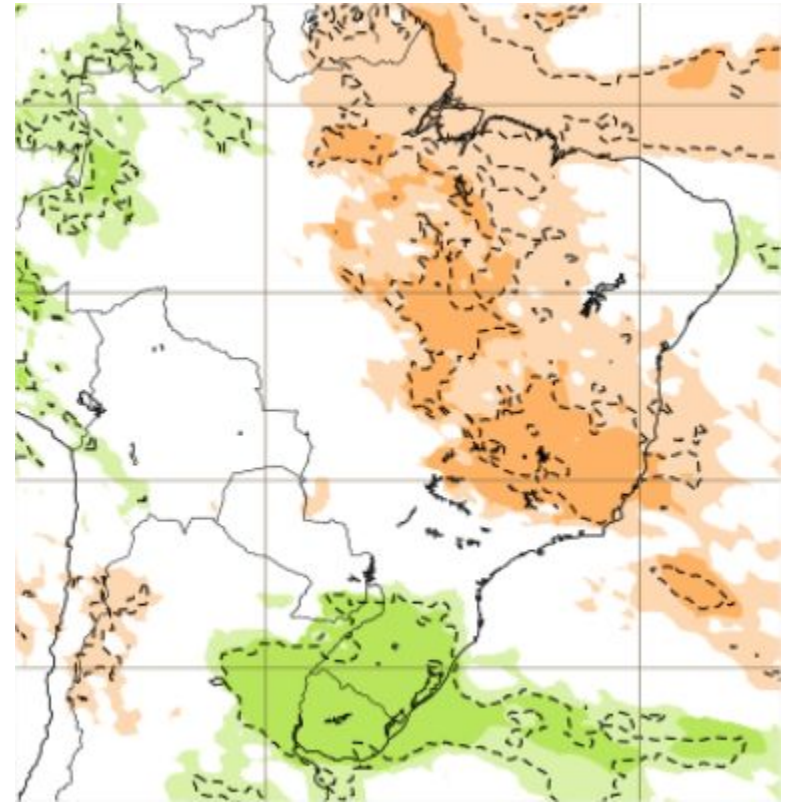


# Tendência para 3ª e 4ª semanas

06-12 NOVEMBRO

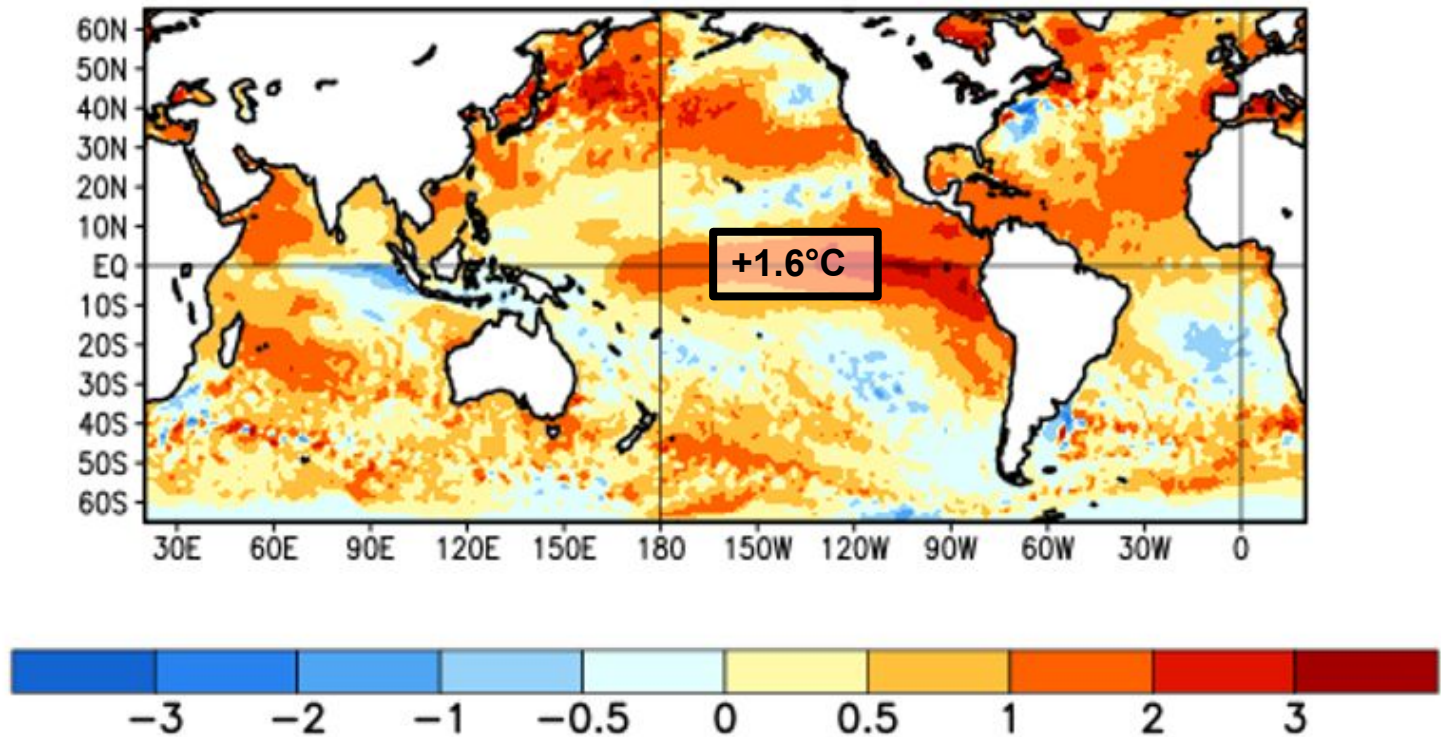


13-19 NOVEMBRO

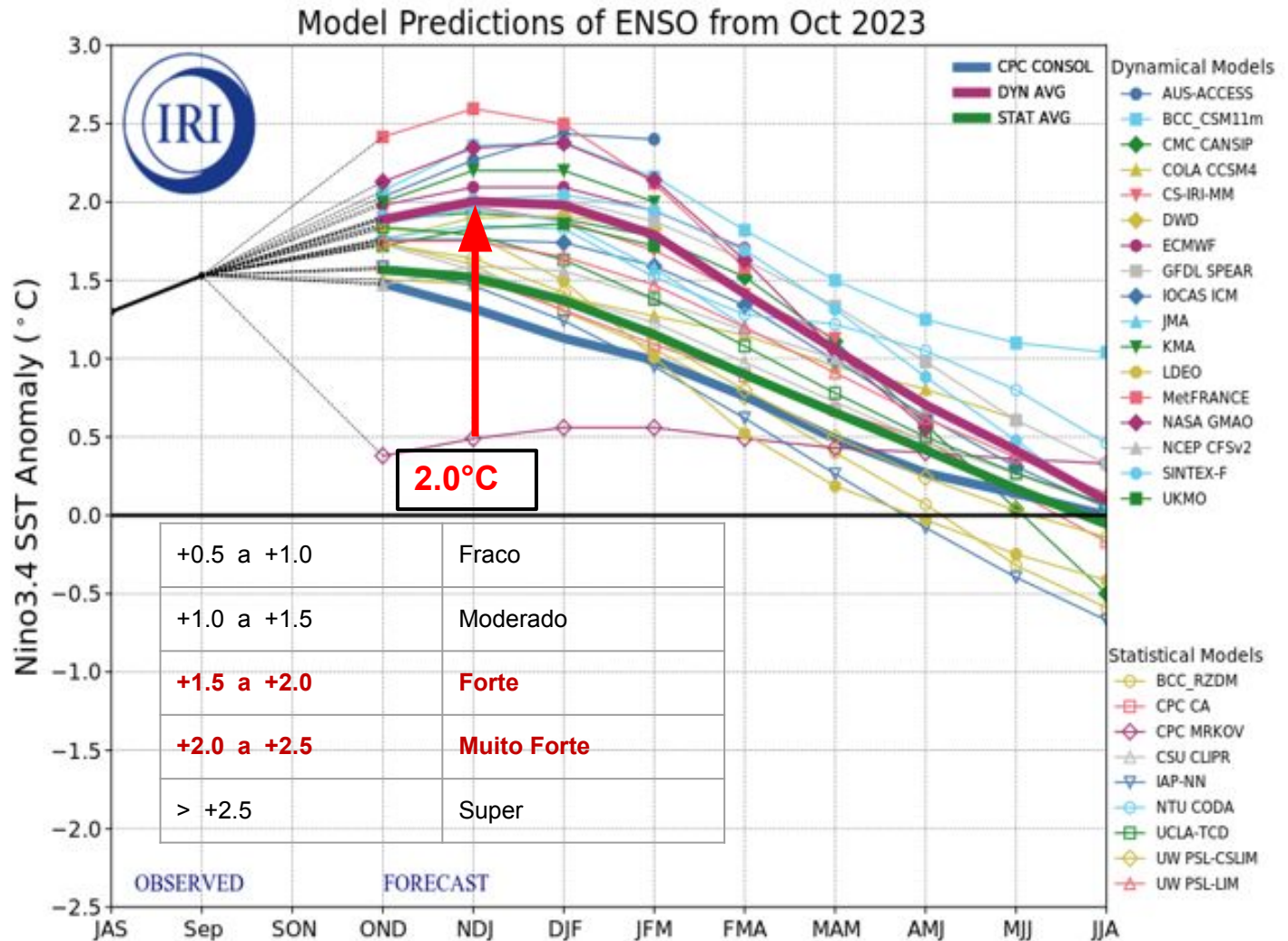


# Evolução: El Niño

Average SST Anomalies  
24 SEP 2023 – 21 OCT 2023

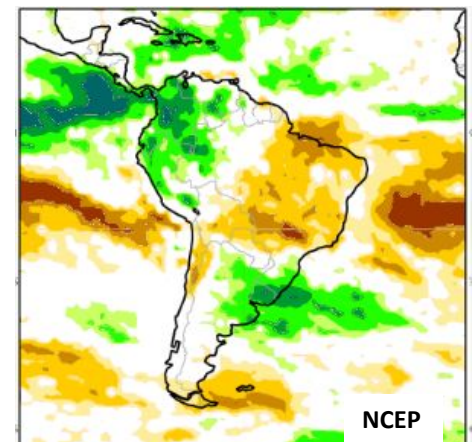
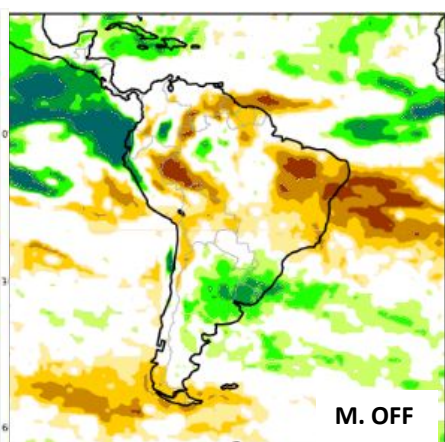
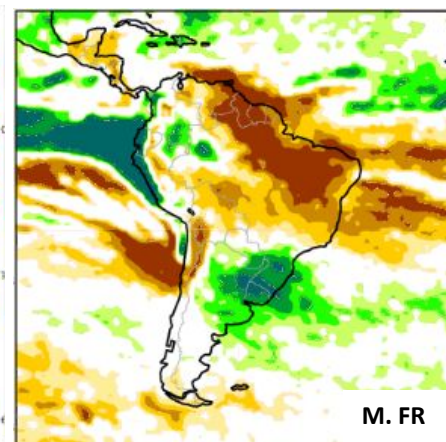
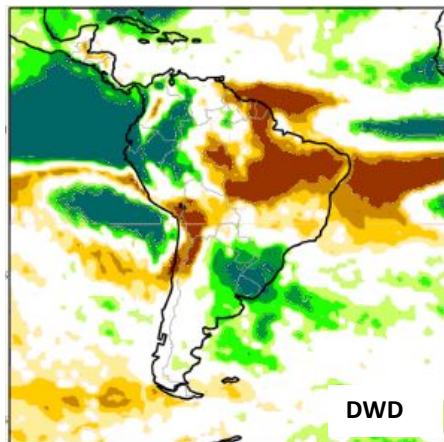
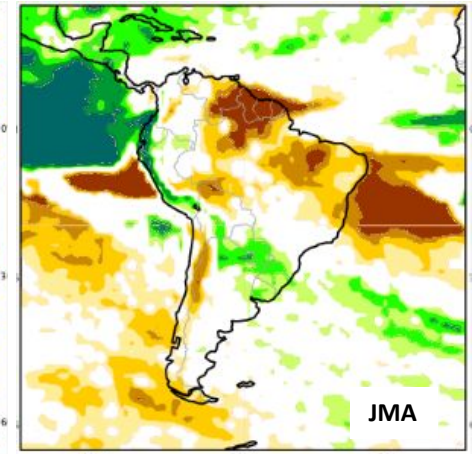
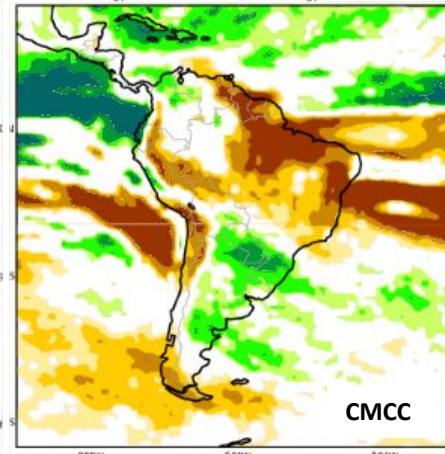
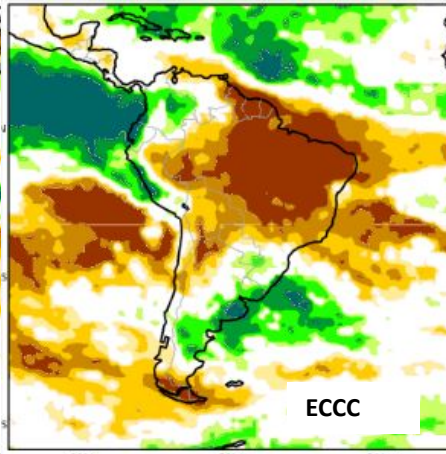
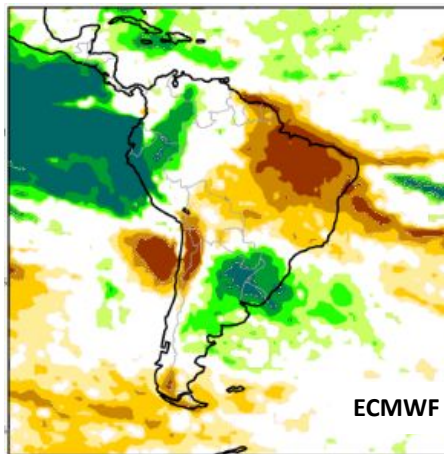
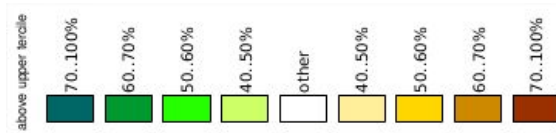


# Previsão do “ENSO”

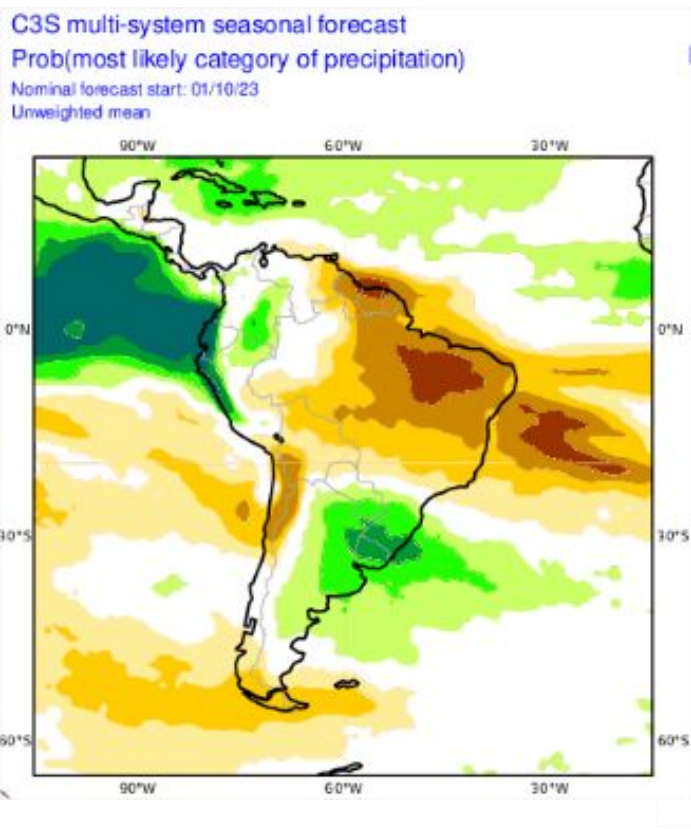


Atualizado:  
19 de outubro

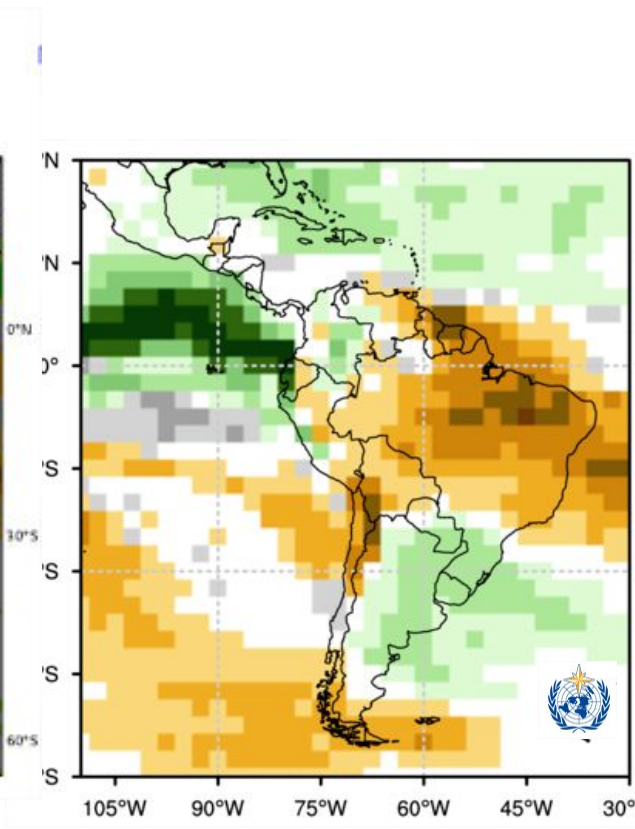
# Previsão Sazonal de Chuva Nov-Dez-Jan



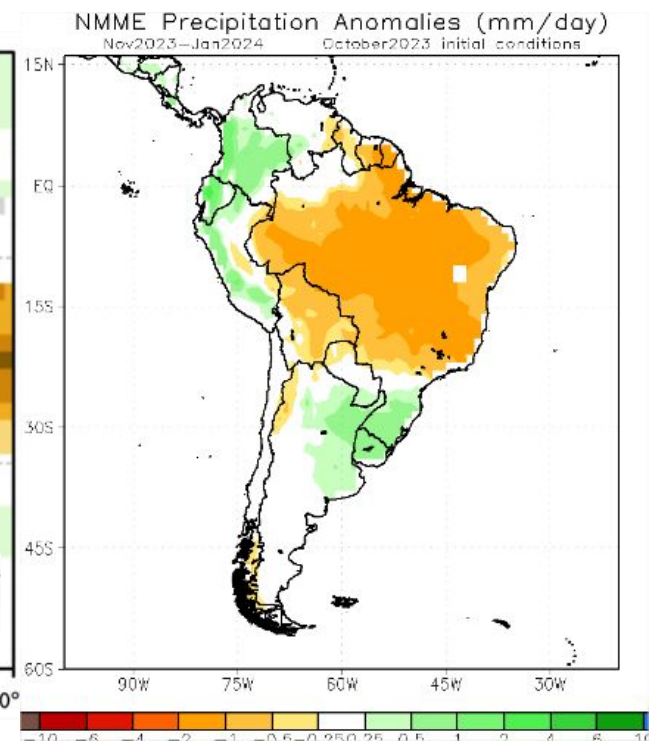
# Previsão Multi-Modelo NOV-DEZ-JAN



Modelos Europeus



Modelos da Organização  
Meteorológica Mundial



Modelos Americanos