



# CEMADEN

Centro Nacional de Monitoramento e  
Alertas de Desastres Naturais

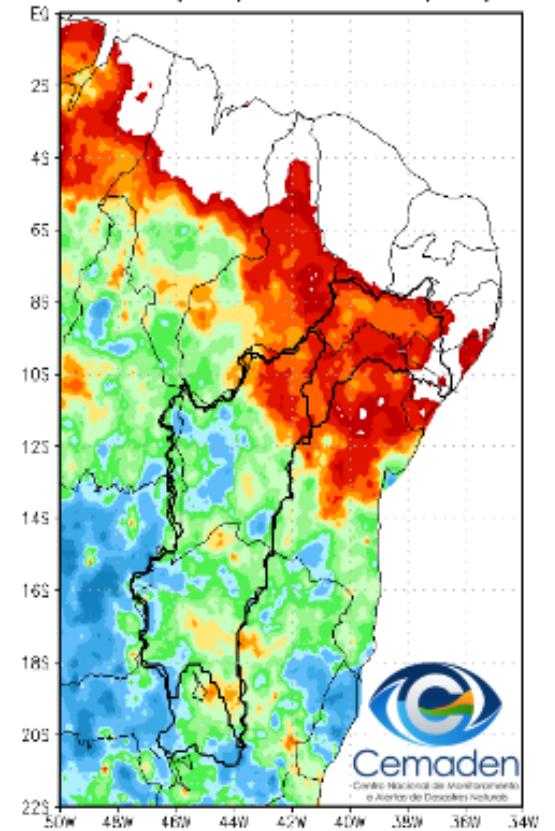
Monitoramento,  
Previsões e  
Projeções para a  
Bacia do Rio São  
Francisco

03 de Dezembro de 2024

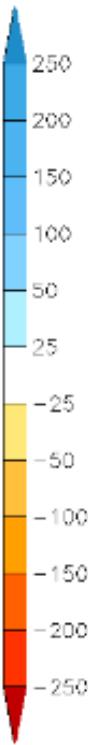
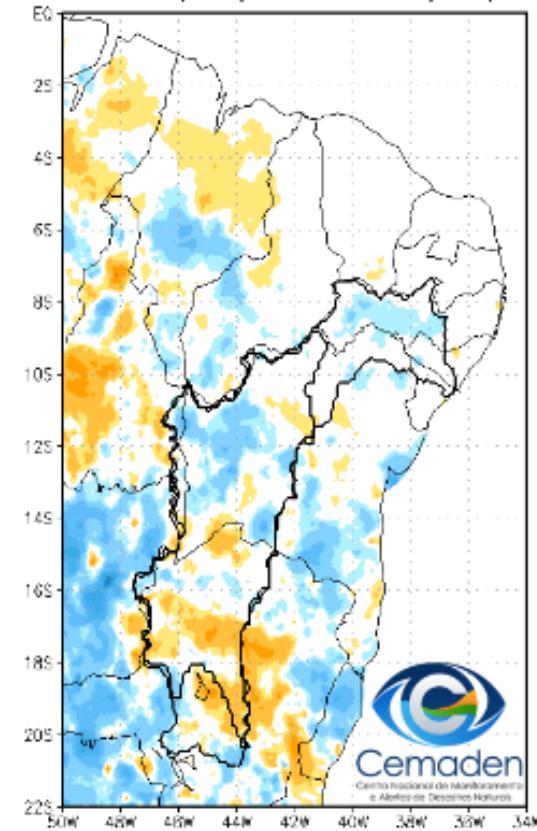


## Chuva dos últimos 30 dias

Precipitacao Acumulada (mm) A.S.  
Periodo: 01/11/2024 a 01/12/2024

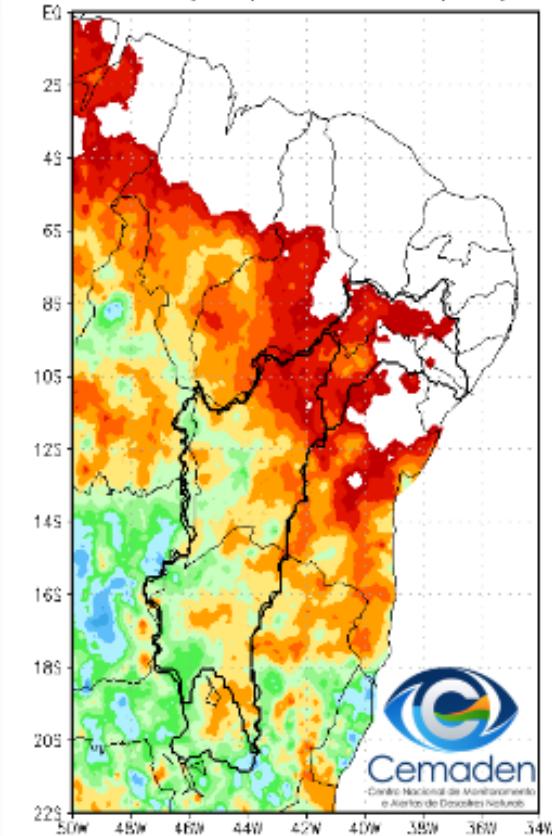


Anomalia de Precipitacao (mm) A.S.  
Periodo: 01/11/2024 a 01/12/2024

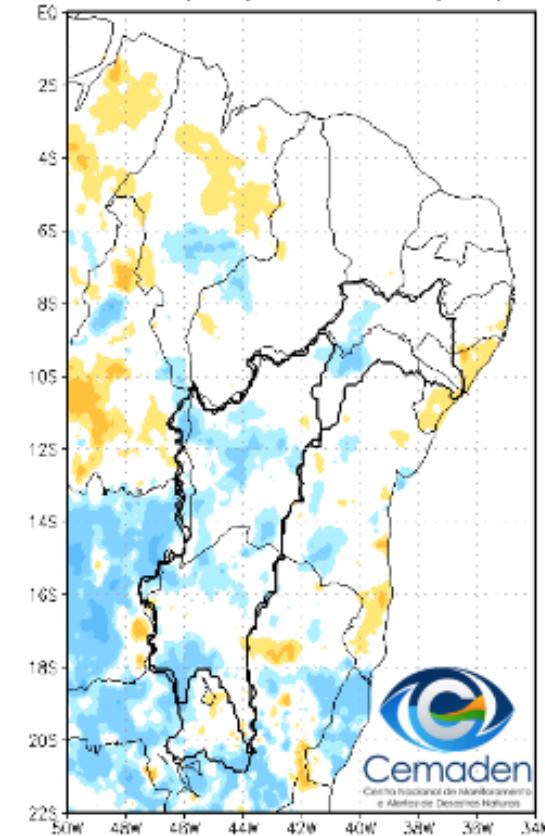


## Chuva no Ano Hidrológico - desde 01/10/2023

Precipitacao Acumulada (mm) A.S.  
Periodo: 01/10/2024 a 01/12/2024

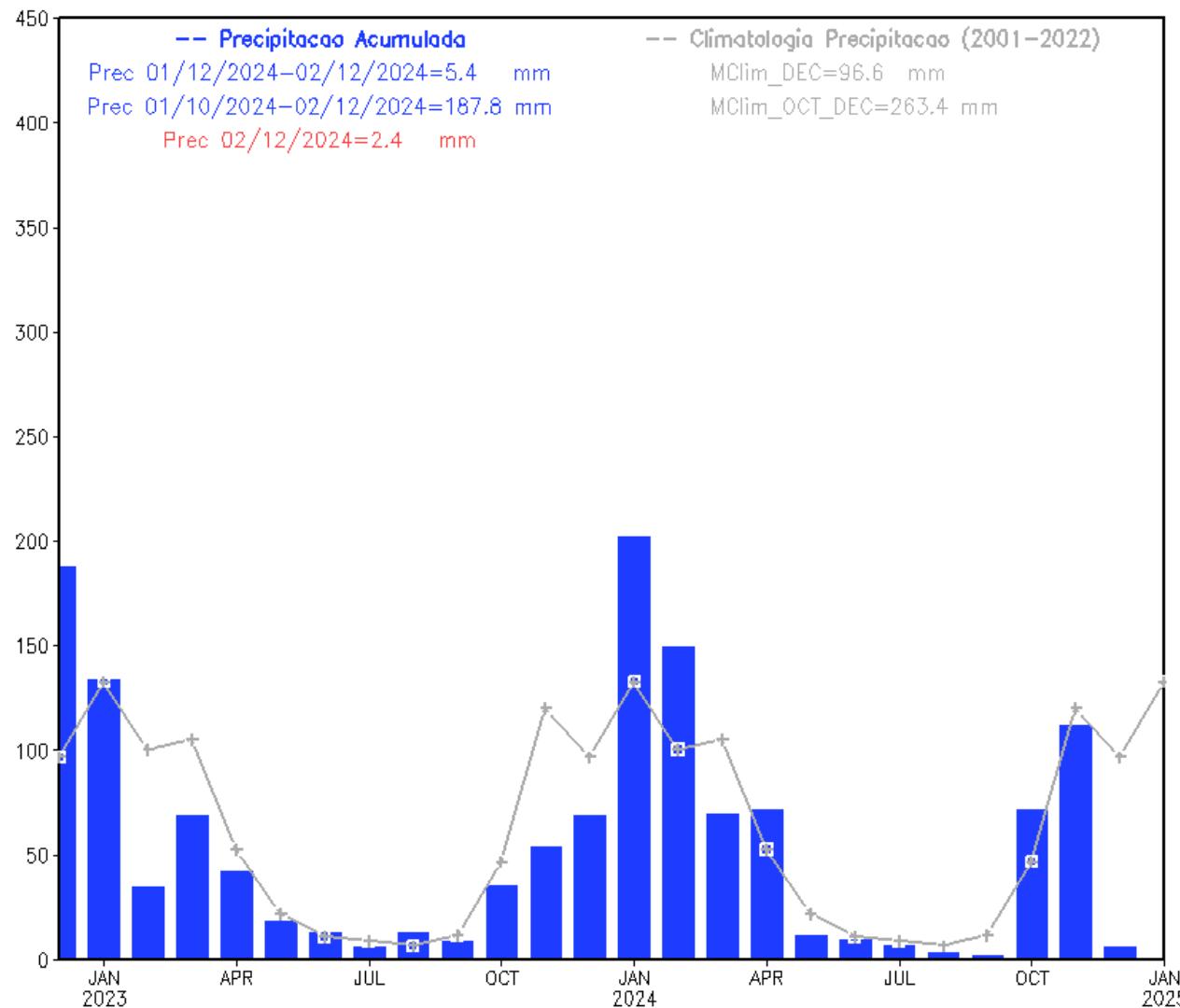


Anomalia de Precipitacao (mm) A.S.  
Periodo: 01/10/2024 a 01/12/2024

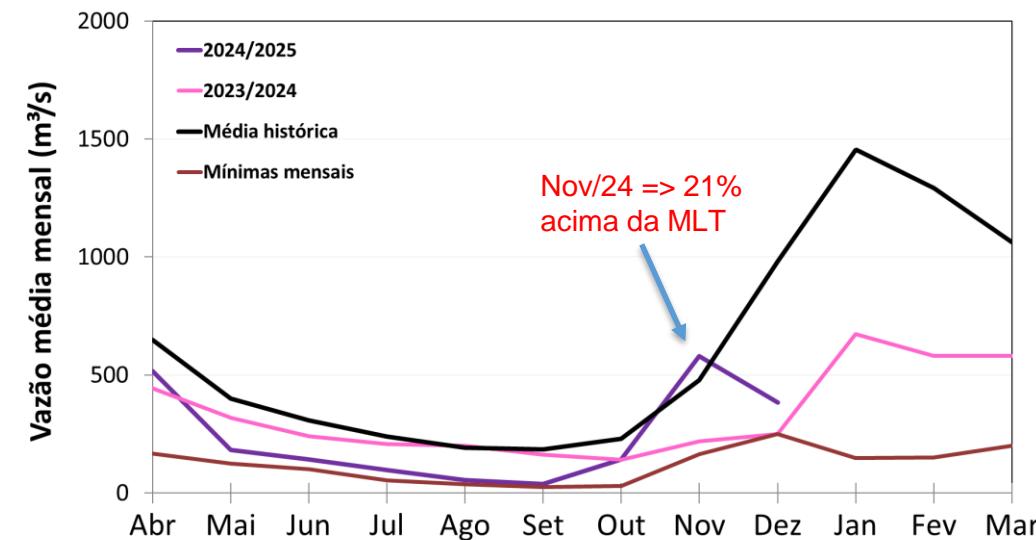
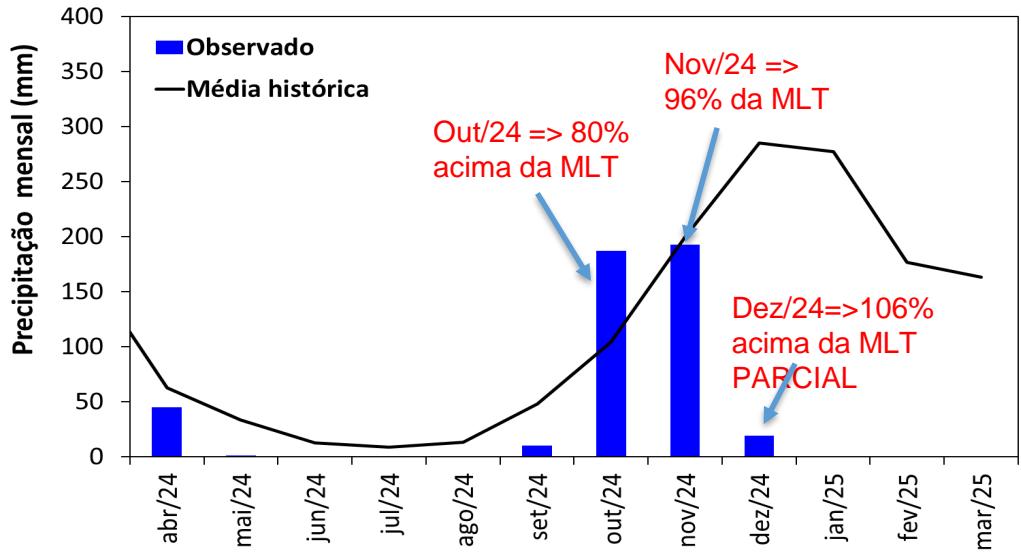


## Chuva dos últimos dois anos

Precipitacao Bacia do Rio Sao\_Francisco  
desde DEC 2022



# Monitoramento UHE Três Marias



MLT: Média de Longo Término (1983-2023)

## Precipitação

### Estação Chuvosa - Out a Mar - 1205 mm

2023/2024: 1057 mm (88% da MLT)  
2024/2025\*: 398 mm (97% da MLT PARCIAL)

### Estação Seca - Abr a Set - 178 mm

2023: 142 mm (79% da MLT)  
2024: 57 mm (32% da MLT)

Nov/24: 193 mm (96% da MLT)

Dez/24\*: 19 mm (206% da MLT PARCIAL)

\*Até 01/12/2024

## Vazão

### Estação Chuvosa - Out a Mar - 917 $m^3/s$

2023/2024: 408  $m^3/s$  (44% da MLT)  
2024/2025\*\*: 369  $m^3/s$  (40% da MLT)

### Estação Seca - Abr a Set - 329 $m^3/s$

2023: 262  $m^3/s$  (80% da MLT)  
2024: 172  $m^3/s$  (52% da MLT)

Nov/24: 580  $m^3/s$  (121% da MLT)

01/Dez/24: 384  $m^3/s$  (39% da MLT)

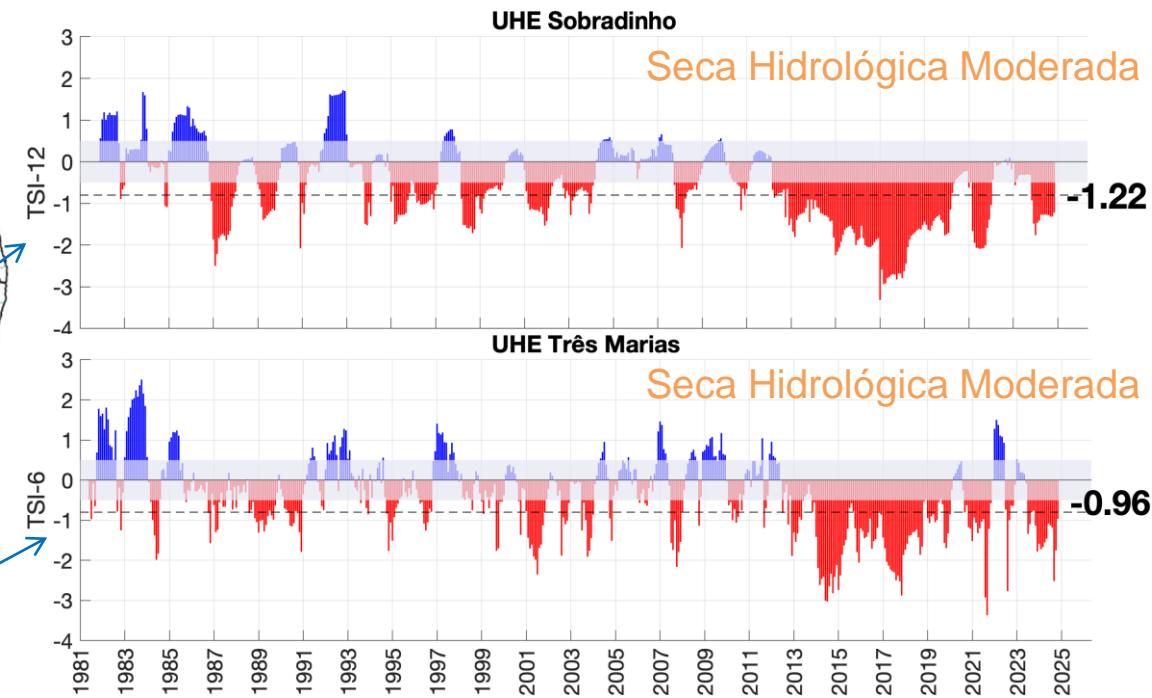
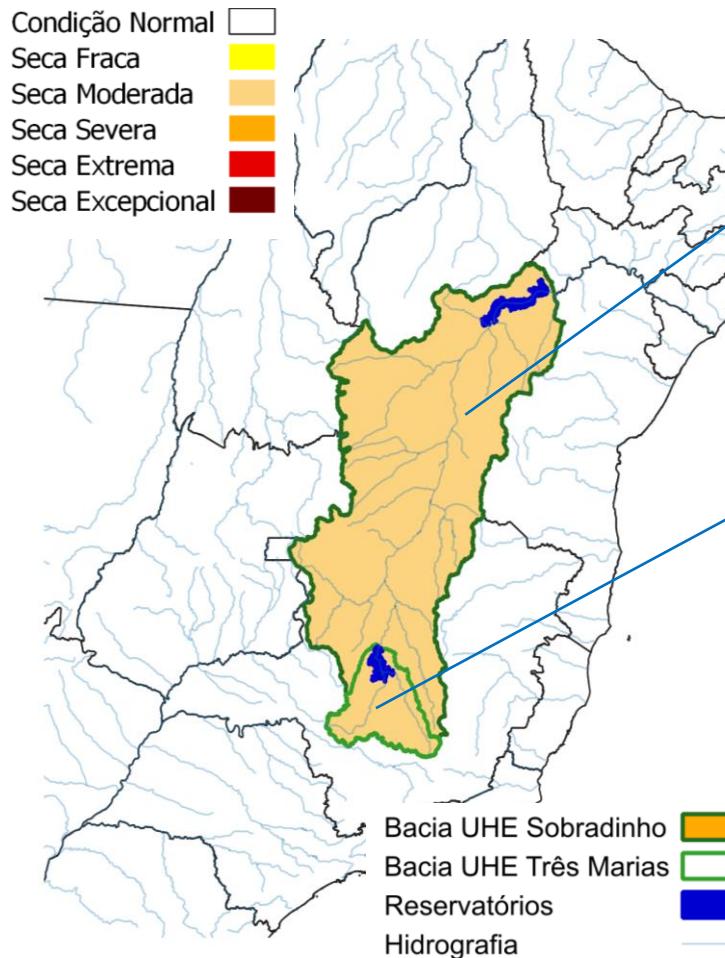
\*Até 01/12/2024

Dados de precipitação: INMET, ANA, CEMADEN.

Dados de vazão: ONS e ANA.

# Monitoramento UHE Três Marias e Sobradinho

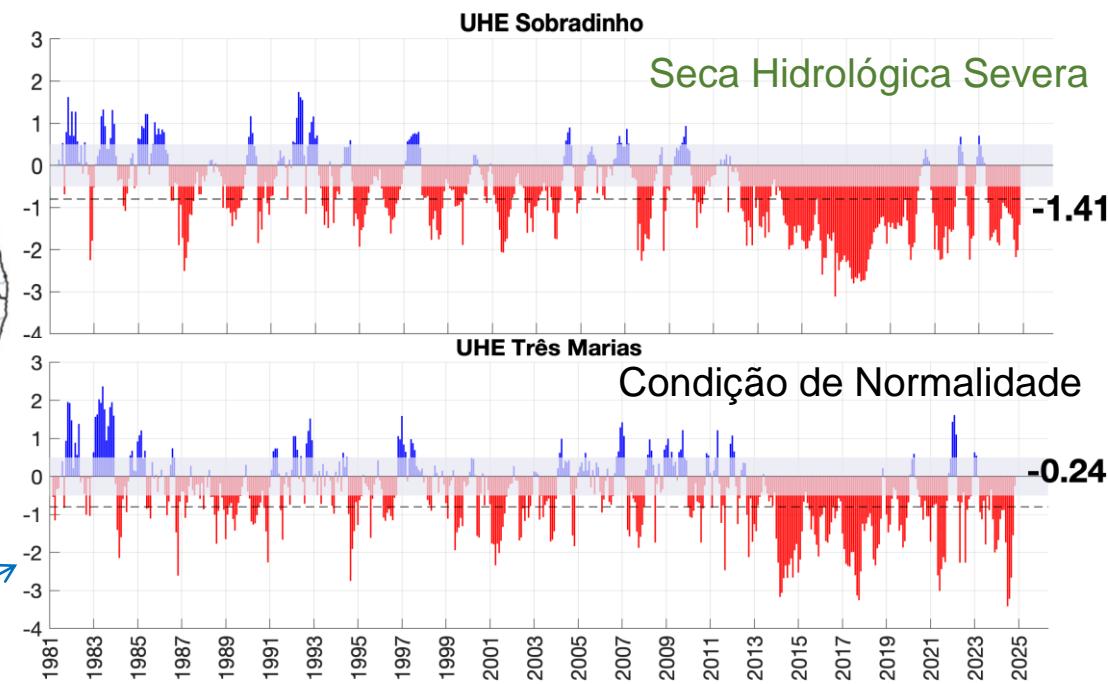
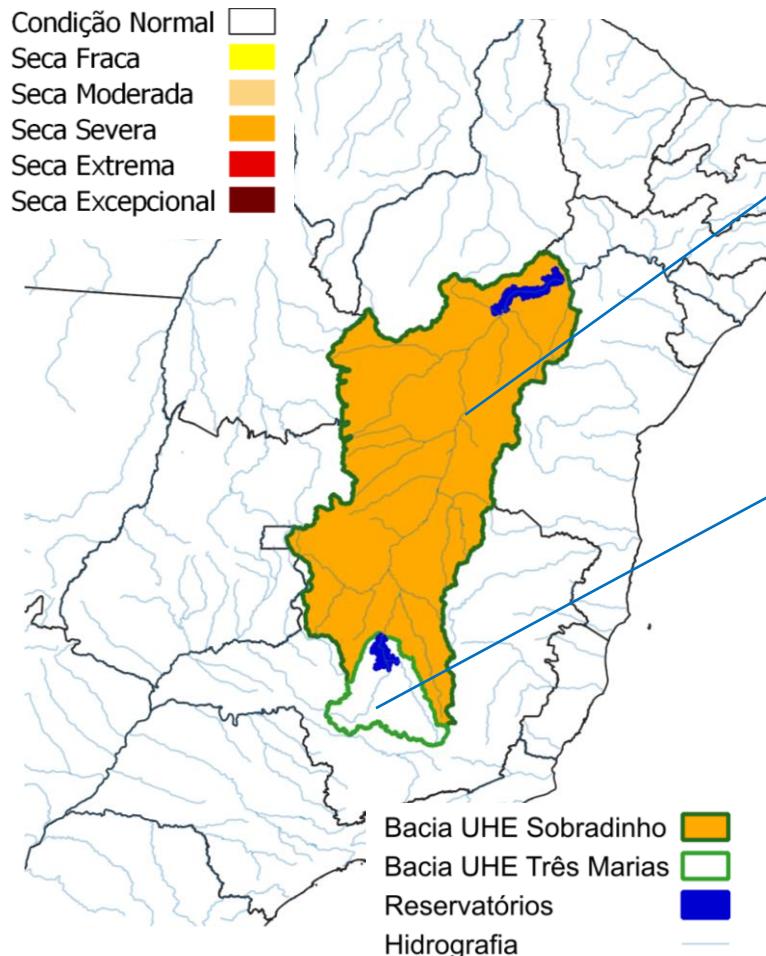
## Índice Padronizado Bivariado (Chuva-Vazão) – Longo Prazo



Bacia afluente à UHE:	TSI-Out	TSI-Nov
<b>Sobradinho</b>	Severa (-1.31)	Moderada (-1.22)
<b>Três Marias</b>	Extrema (-1.74)	Moderada (-0.96)

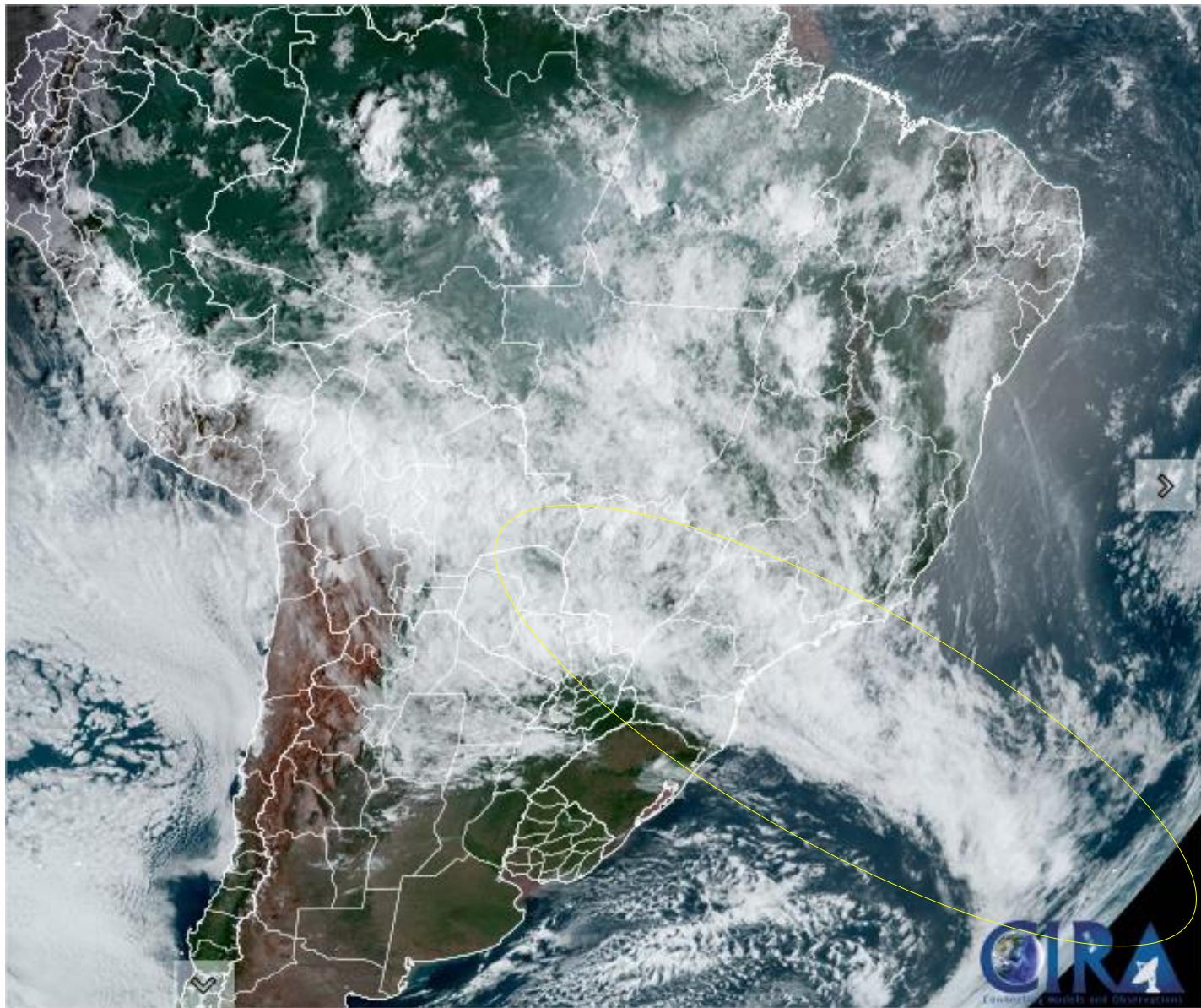
# Monitoramento UHE Três Marias e Sobradinho

## Índice Padronizado Bivariado (Chuva-Vazão) – Curto Prazo

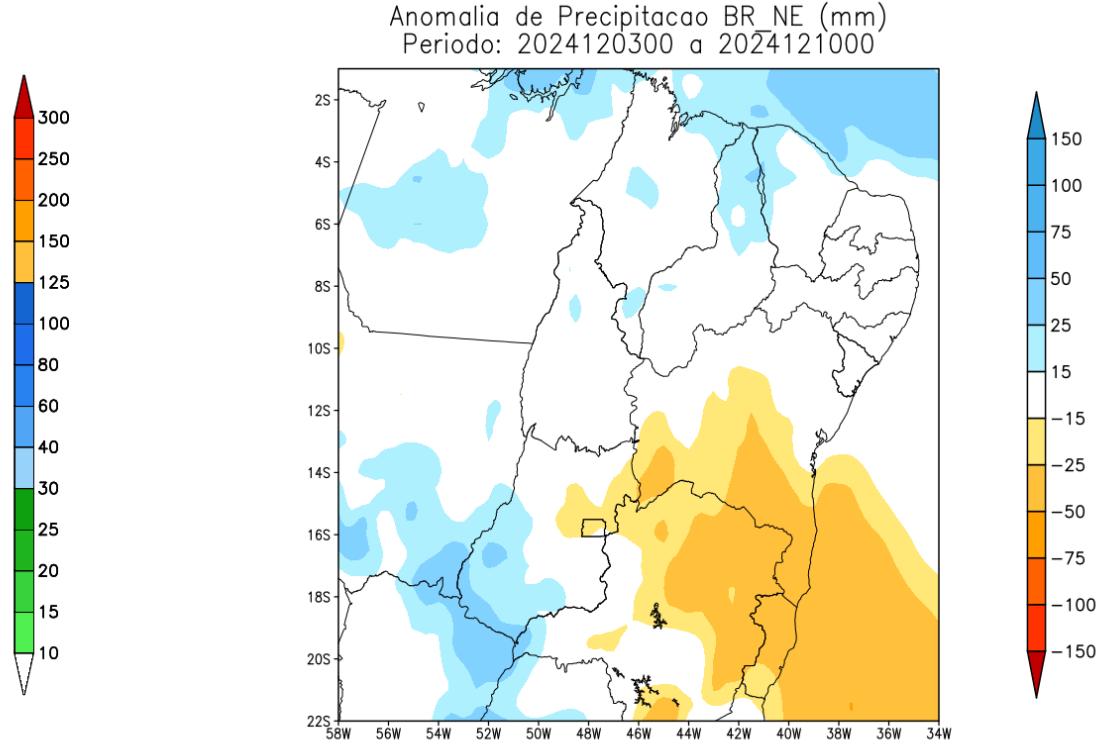
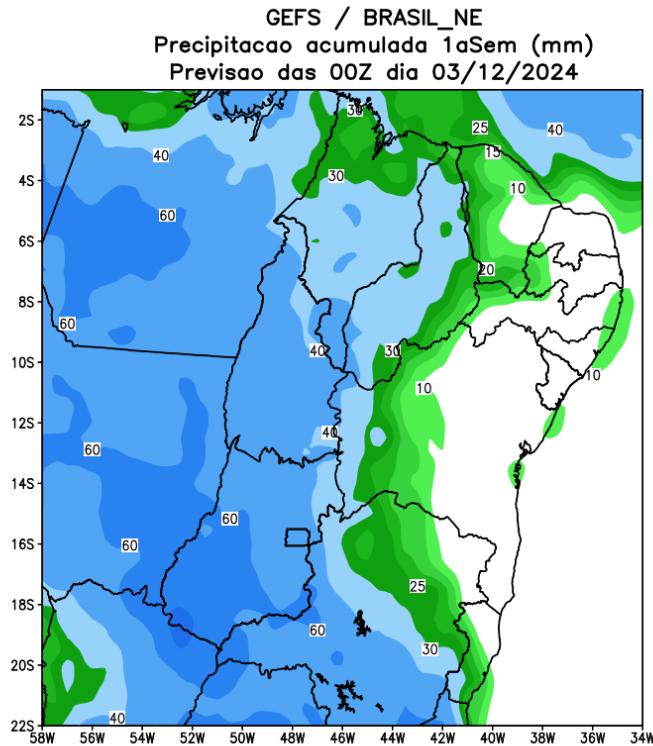


Bacia afluente à UHE:	TSI-Out	TSI-Nov
<b>Sobradinho</b>	Extrema (-2.00)	Severa (-1.41)
<b>Três Marias</b>	Severa (-1.51)	Normal (-0.24)

# Situação meteorológica atual



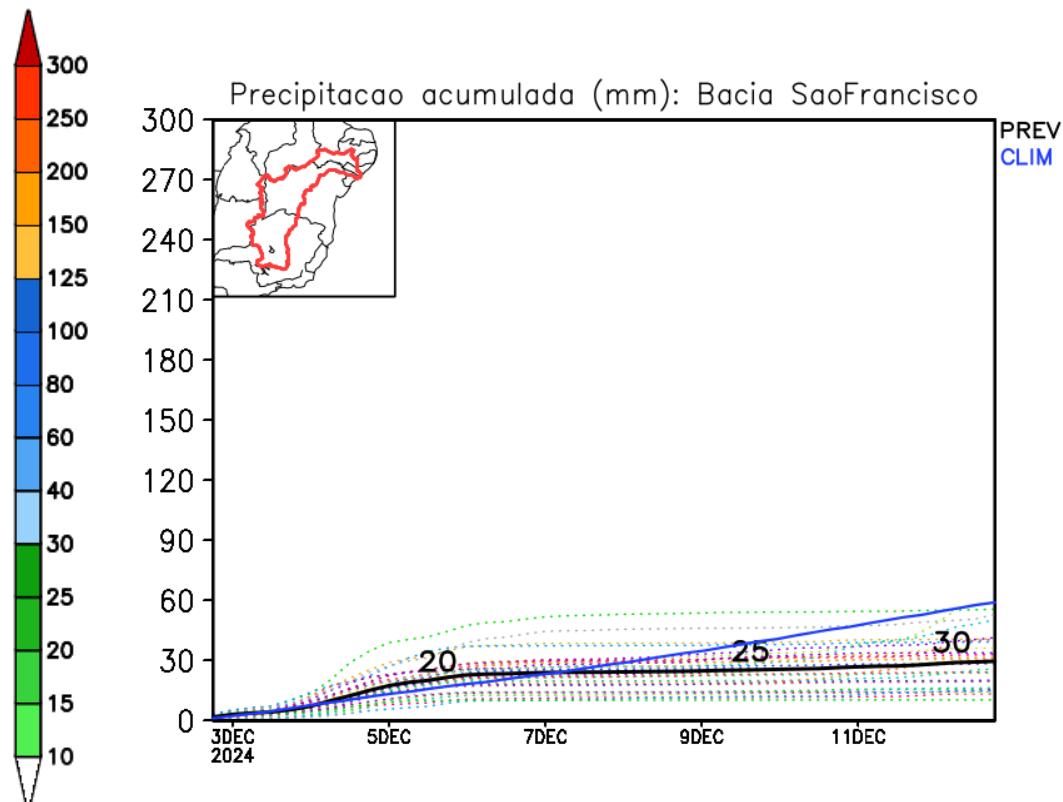
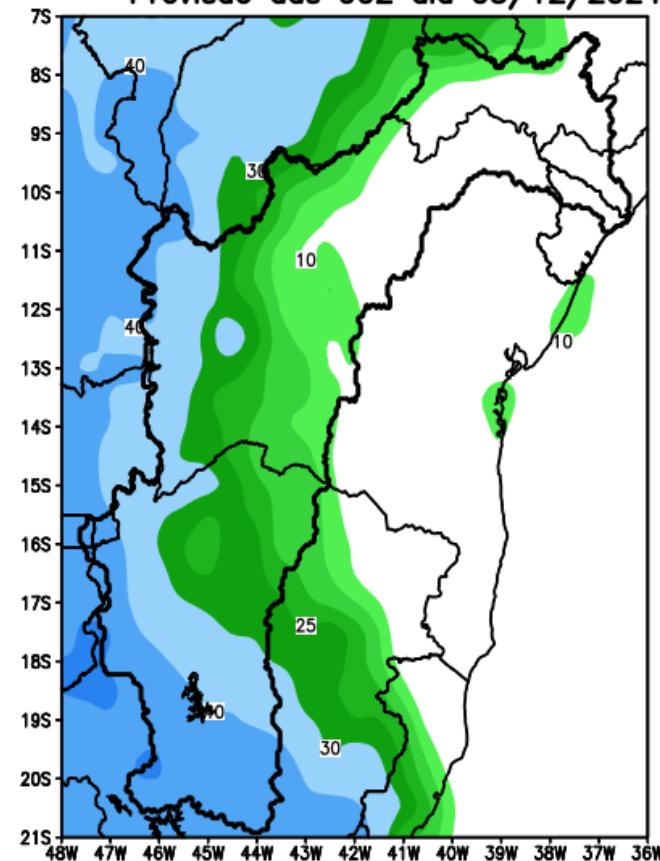
## Previsão de chuva próximos 7 dias



Fonte: GEFS/NOAA

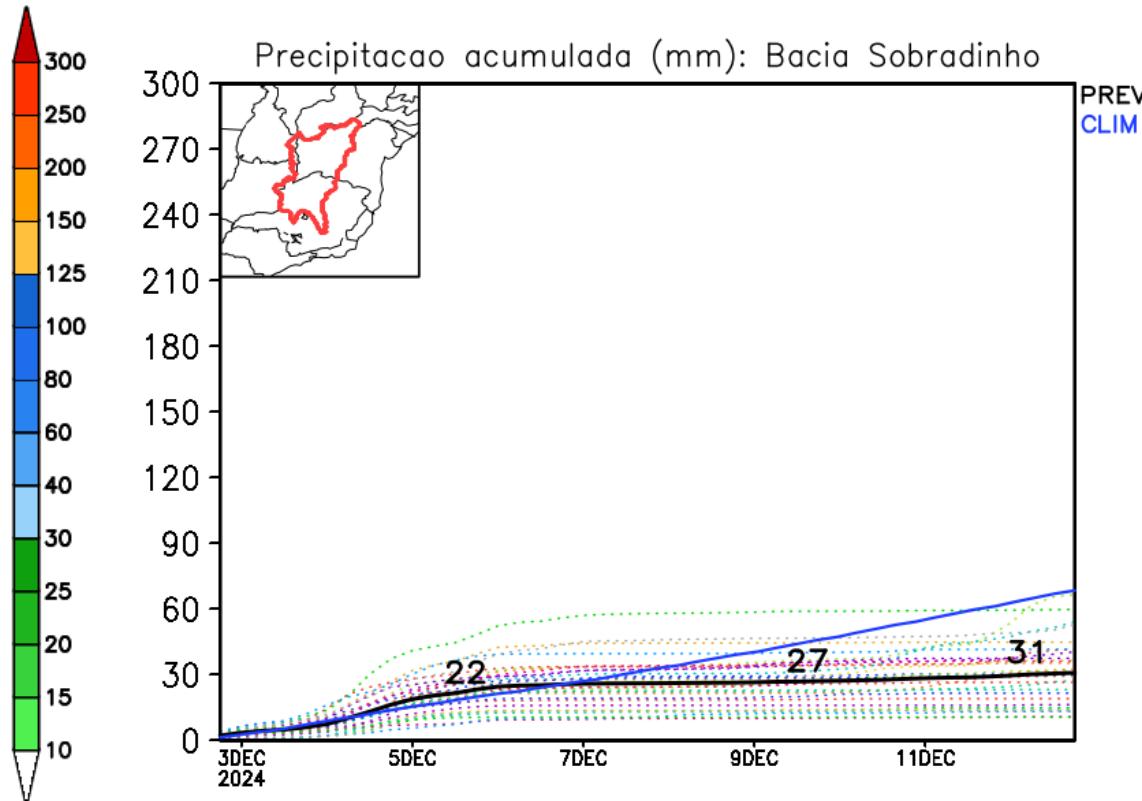
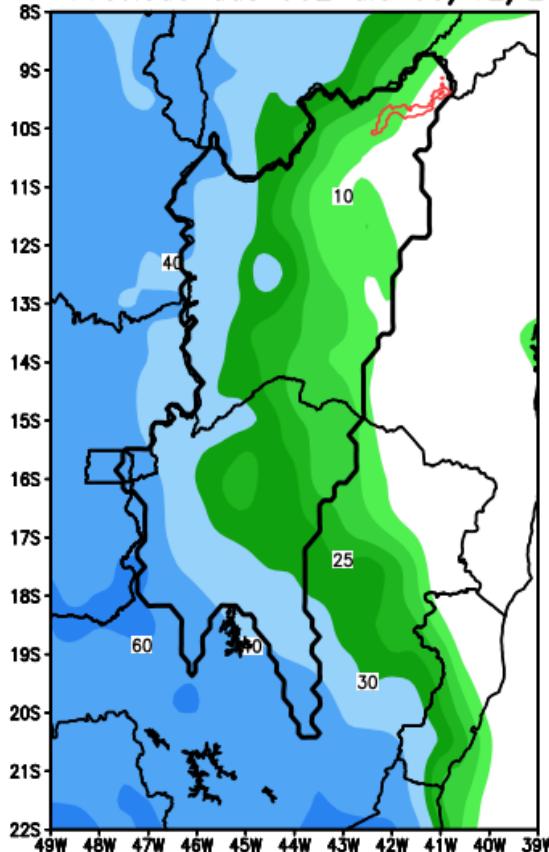
# Bacia do rio São Francisco

GEFS / Bacia do Rio Sao Francisco  
Precipitacao acumulada em 7 dias (mm)  
Previsao das 00Z dia 03/12/2024

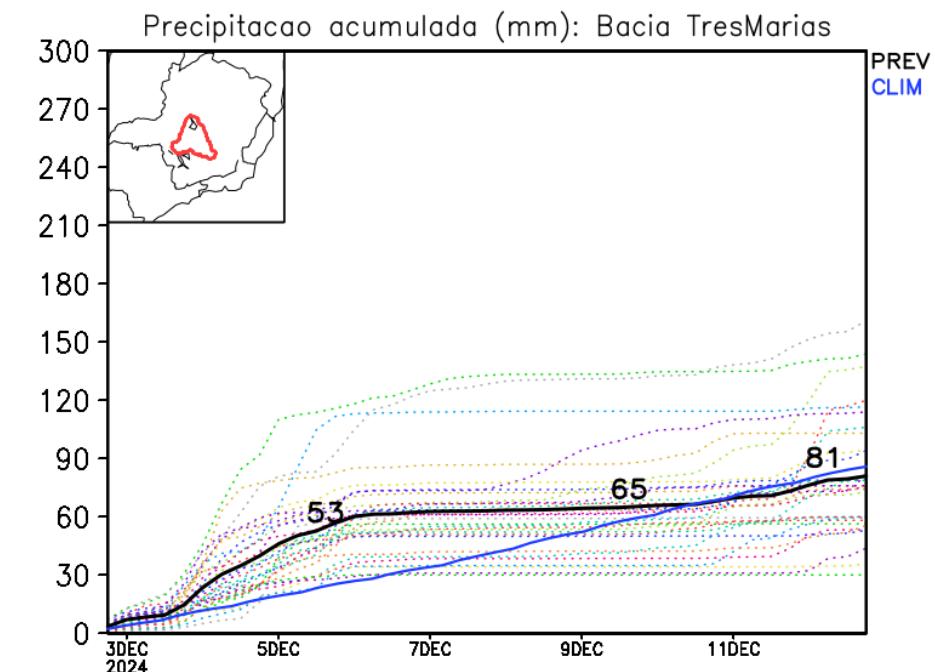
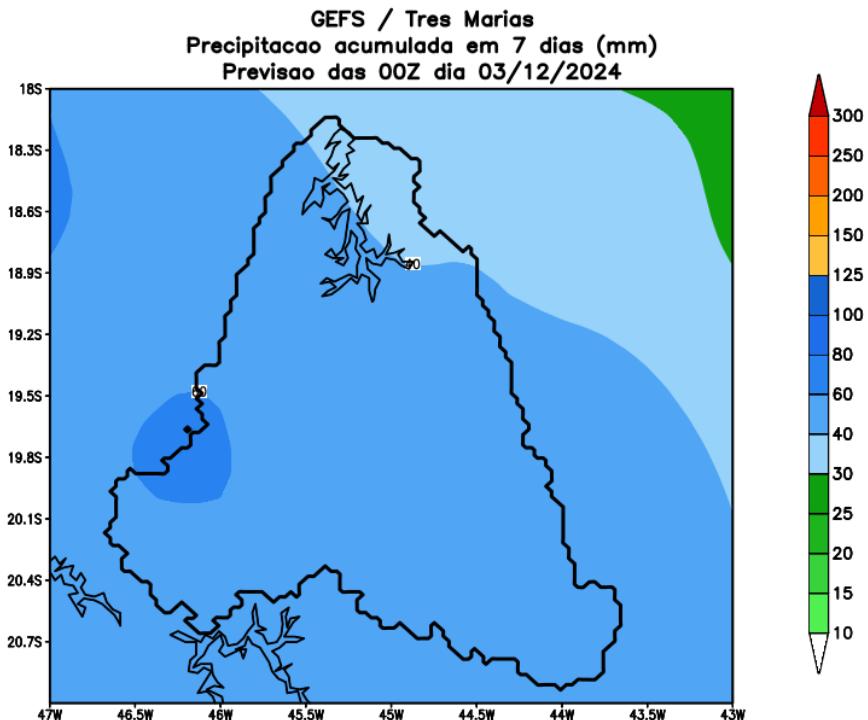


# Bacia de Sobradinho

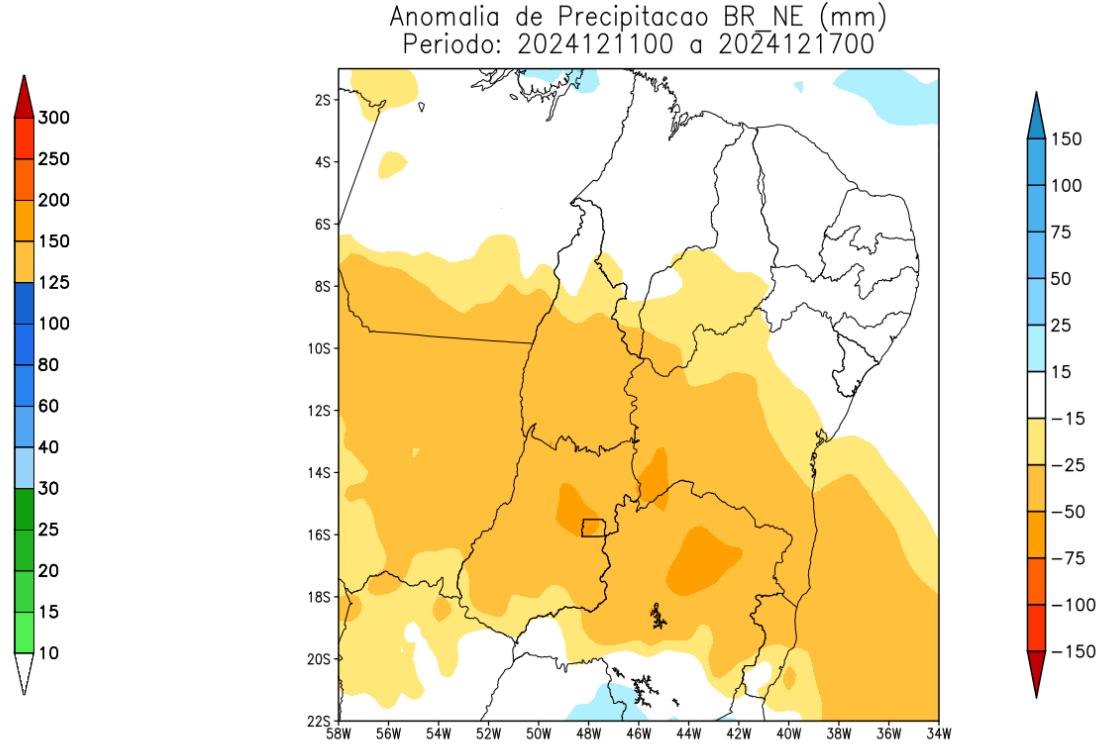
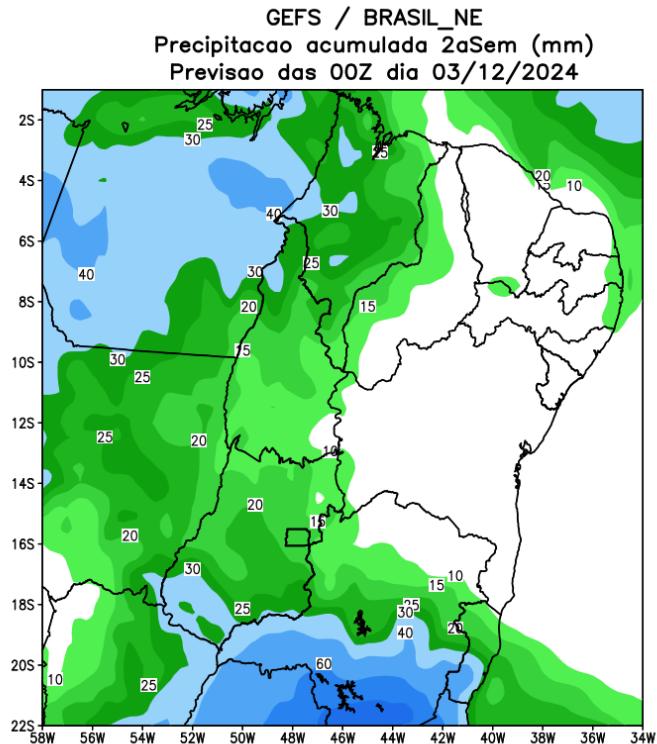
GEFS / Sobradinho  
Precipitacao acumulada em 7 dias (mm)  
Previsao das 00Z dia 03/12/2024



# Bacia de Três Marias

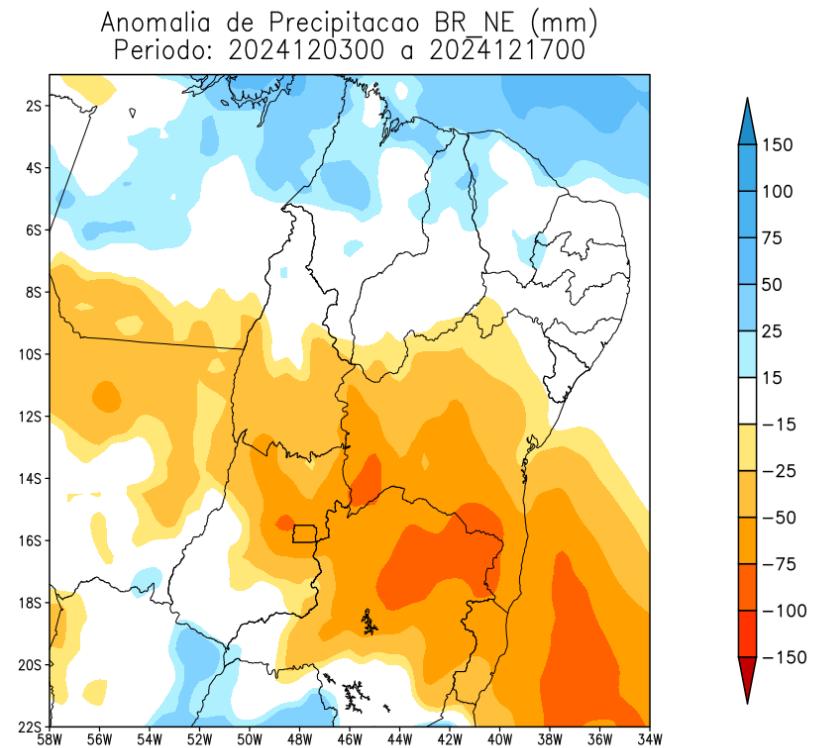
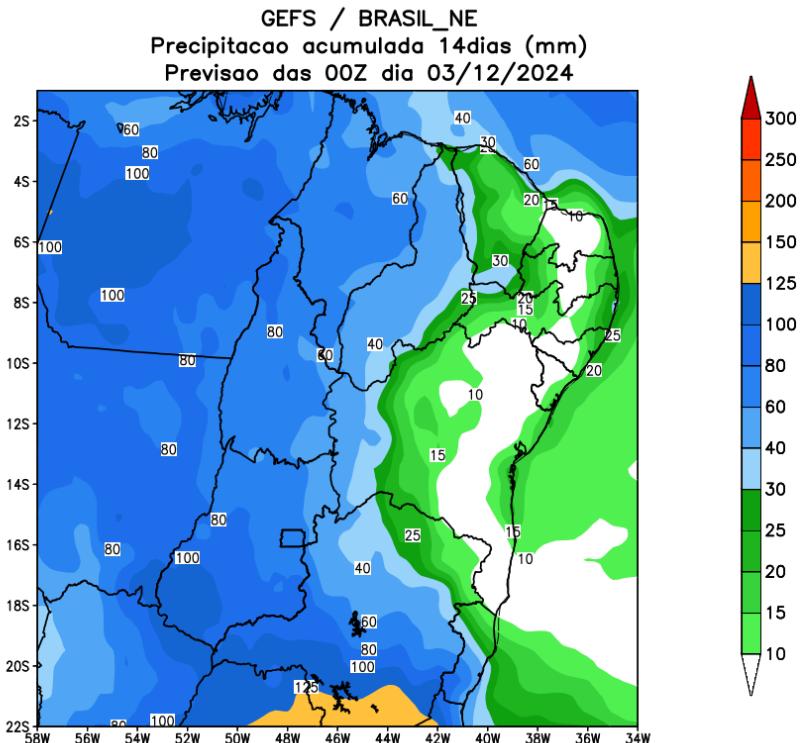


# Tendência para a 2a semana



Modelo GFS/NOAA

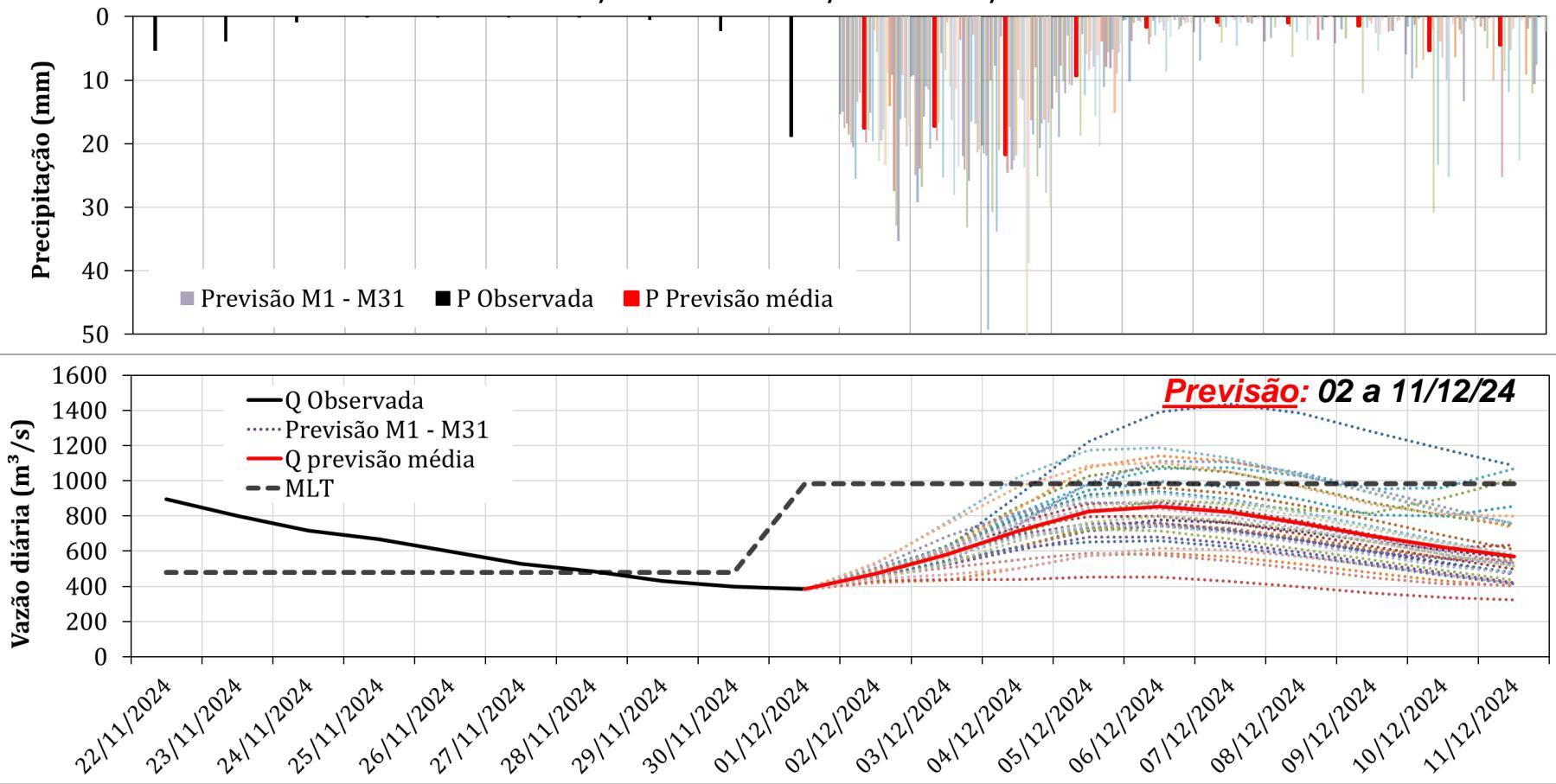
# Tendência para as duas próximas semanas

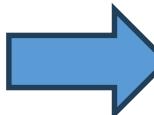


Modelo GFS/NOAA

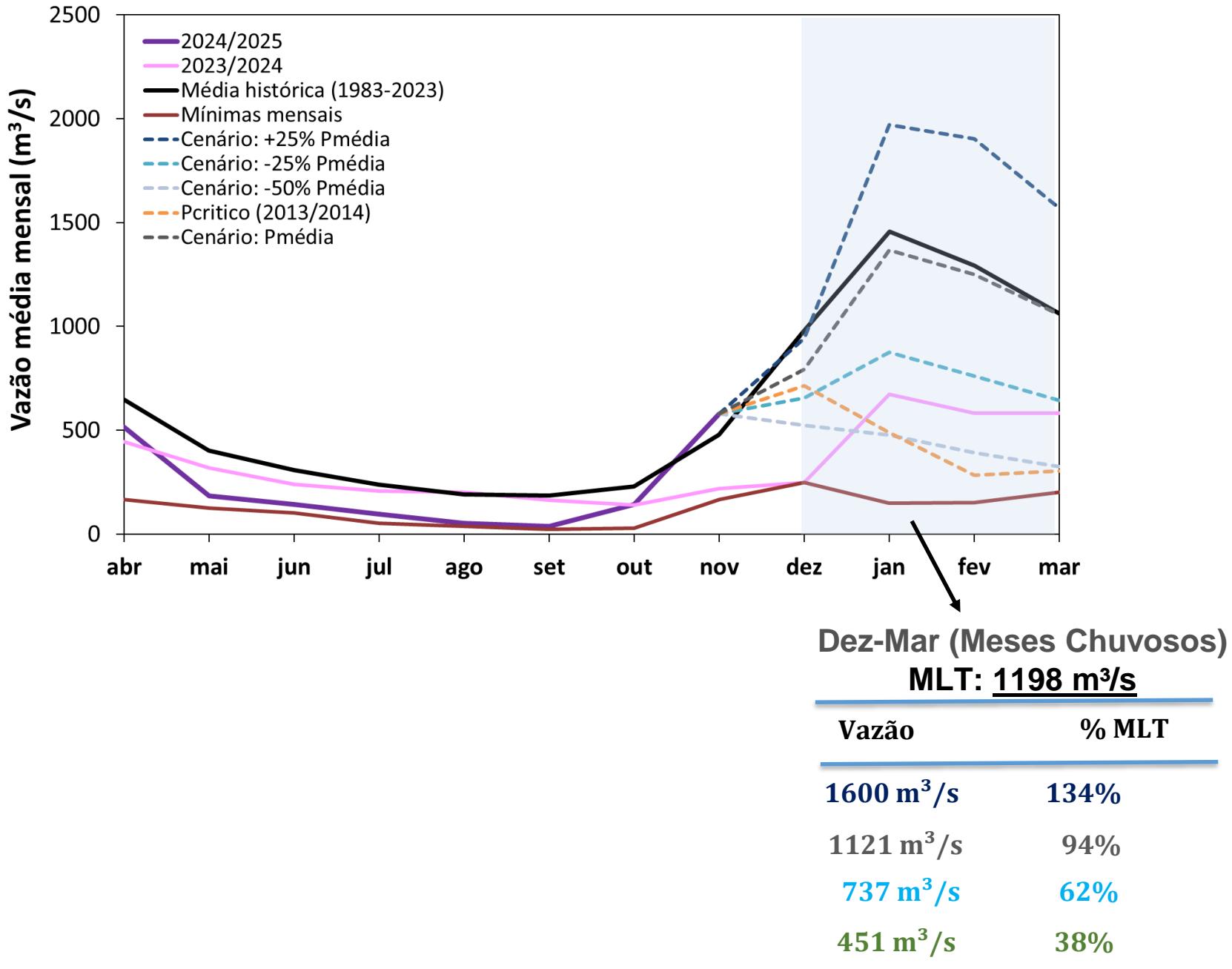
# UHE Três Marias: Previsão de Vazão (modelo PDM/CEMADEN)

## Vazão Natural e Precipitação Diárias para Três Marias 22/Novembro a 11/Dezembro/2024



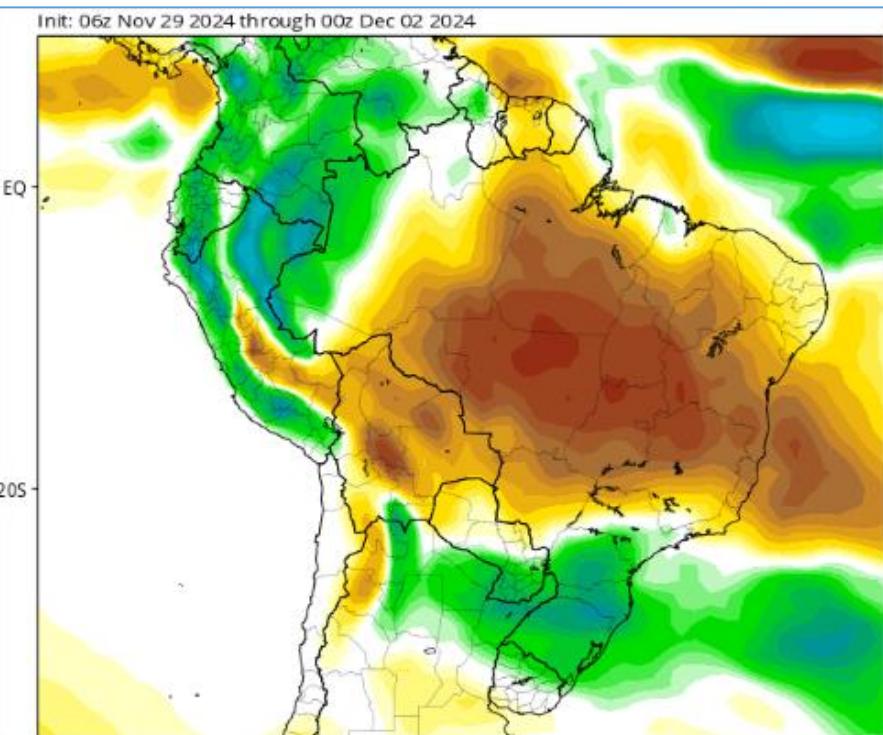
Previsão média para  
os próximos 10 dias: 690  $m^3/s$   70% da MLT de Dezembro

# Três Marias: Projeção de Vazão (Modelo hidrológico PDM-CEMADEN)

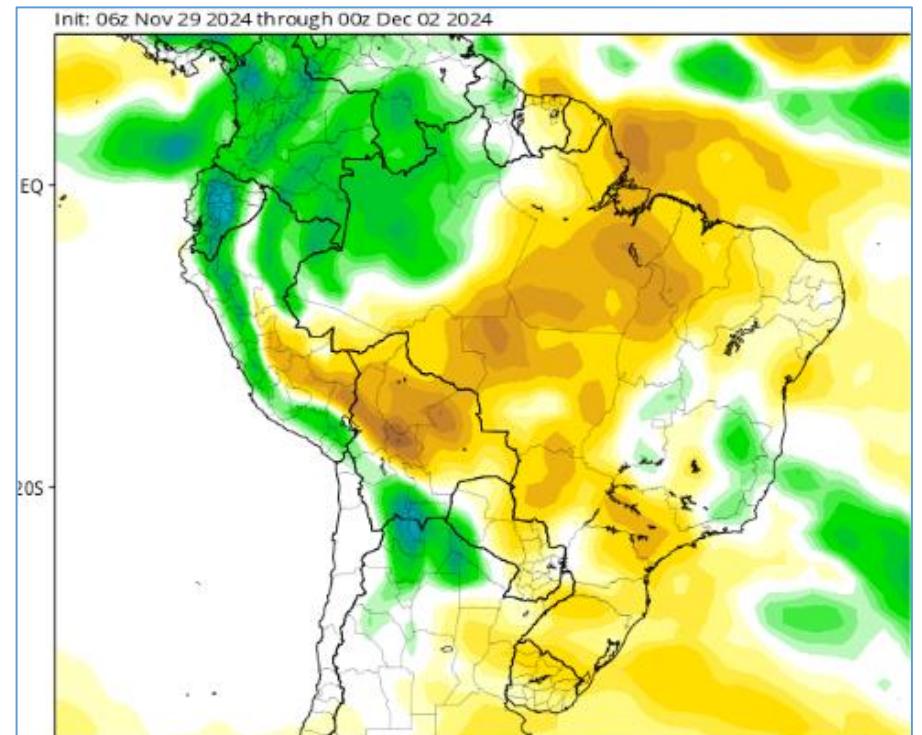


## Tendência 3a e 4a semanas

16-23 Dez

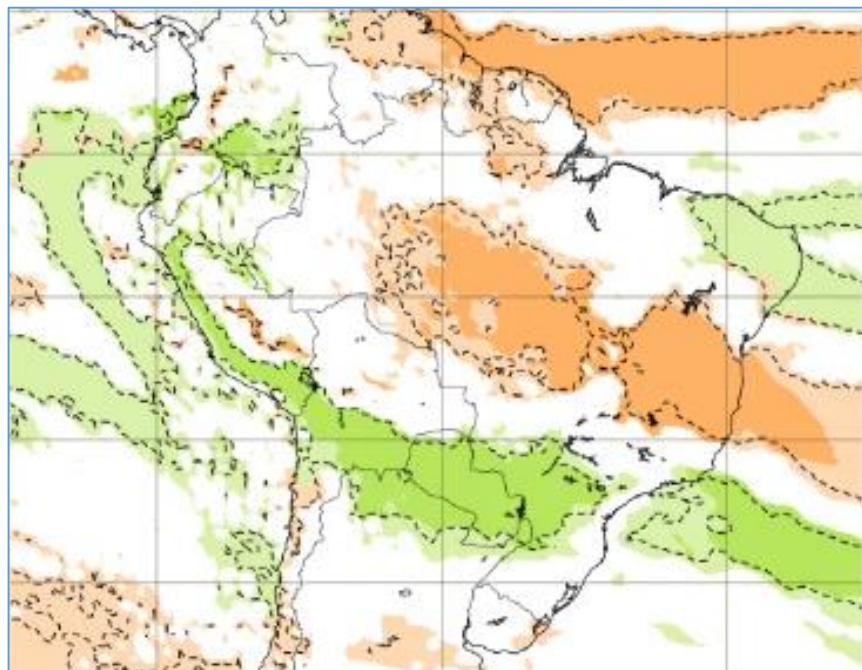


23-30 Dez

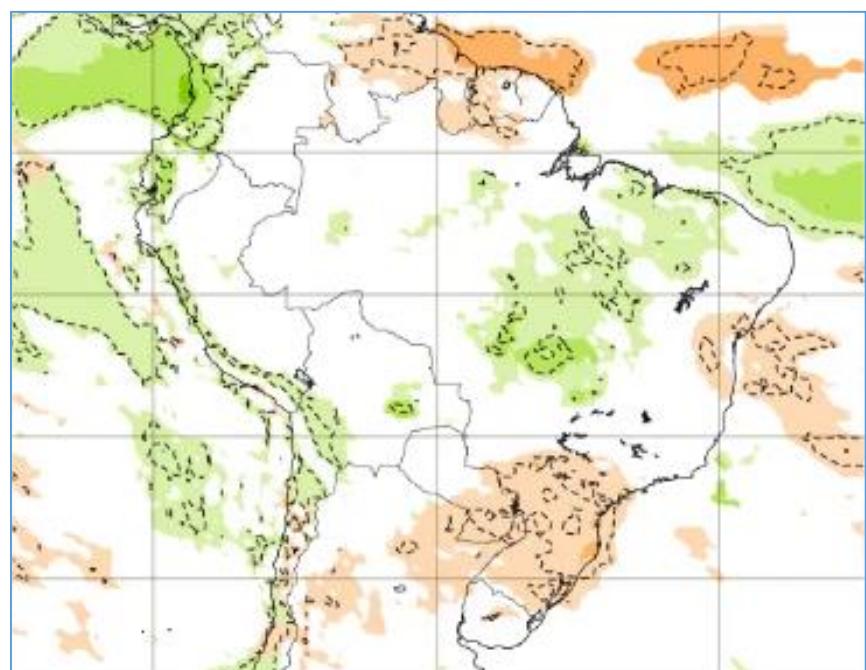


## Tendência para 3<sup>a</sup> e 4<sup>a</sup> semanas

16 – 23 Dez

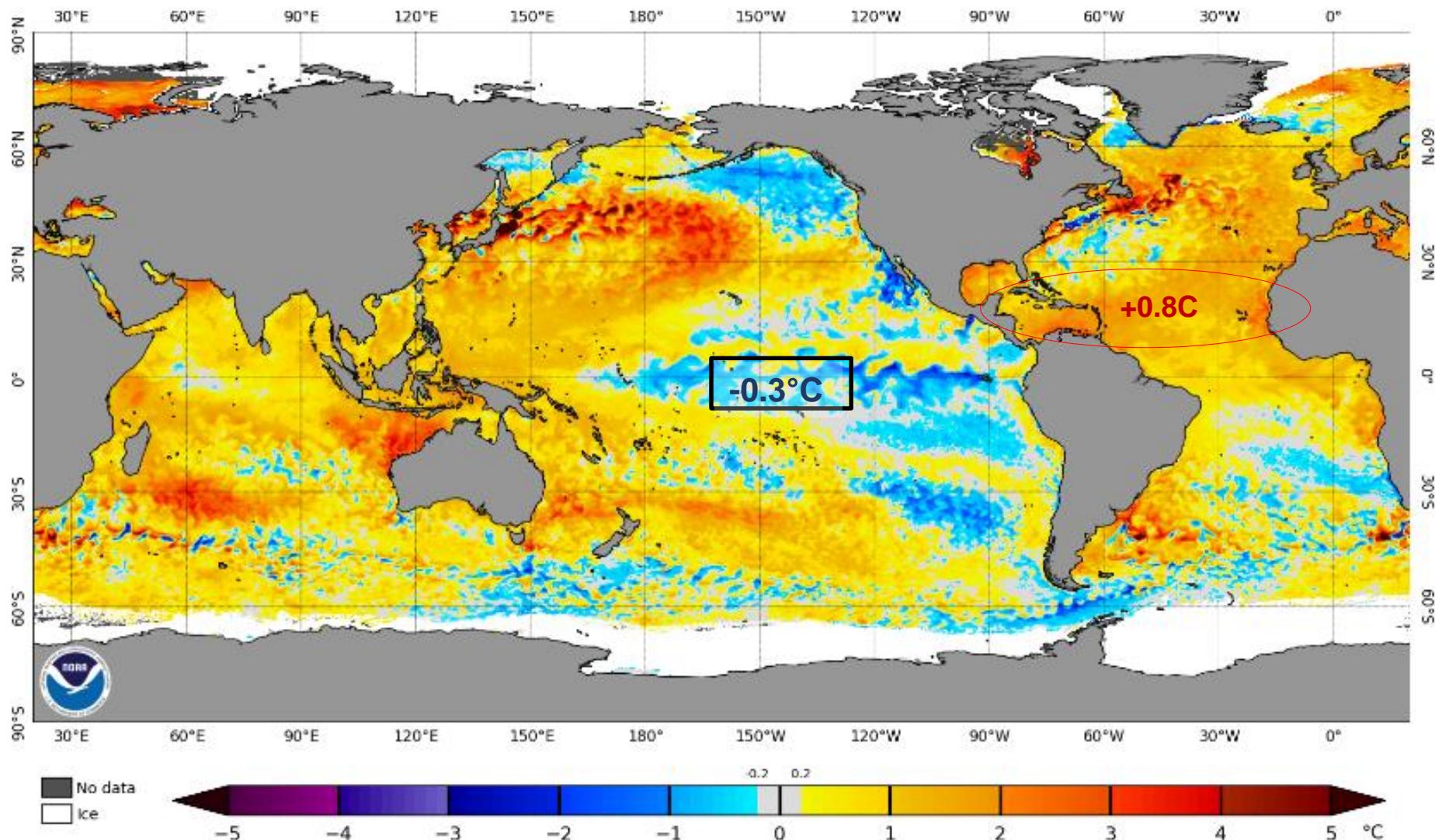


23-30 Dez



# Status Atual: La Niña Watch

NOAA Coral Reef Watch Daily 5km SST Anomalies (v3.1) 30 Nov 2024



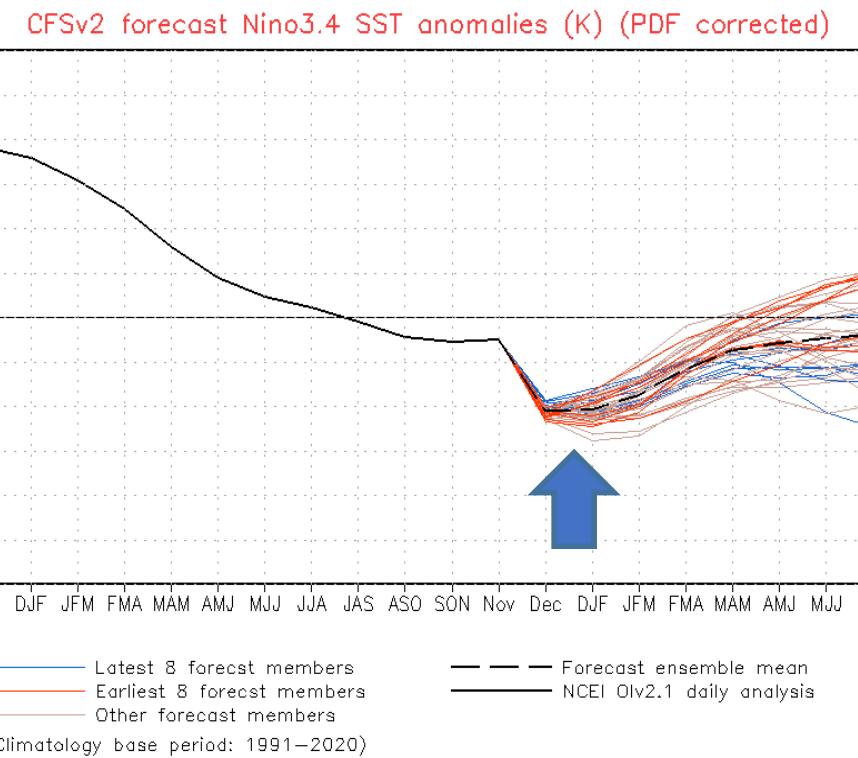
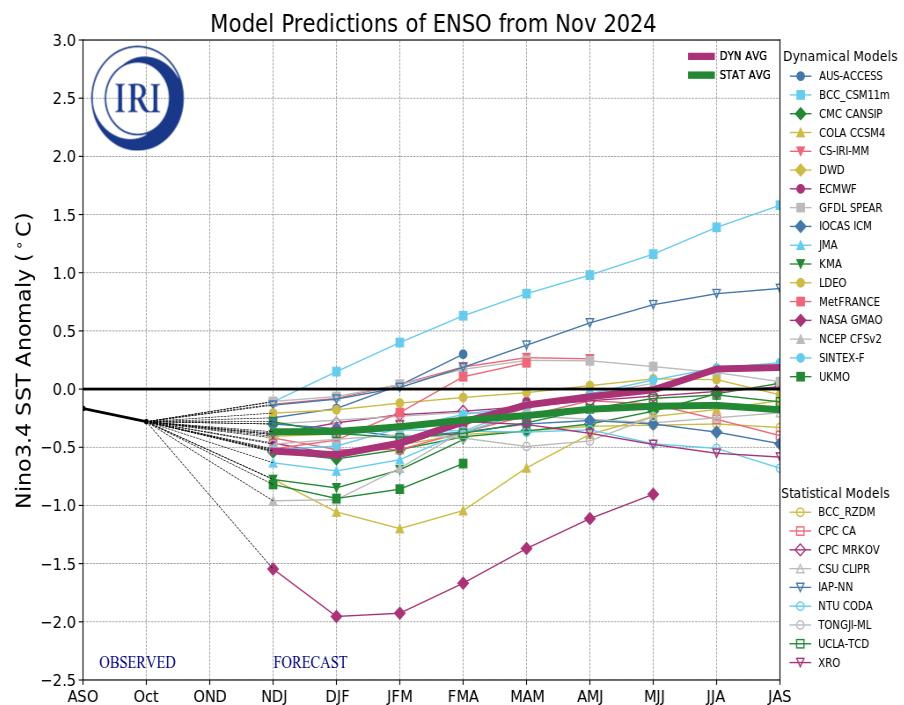
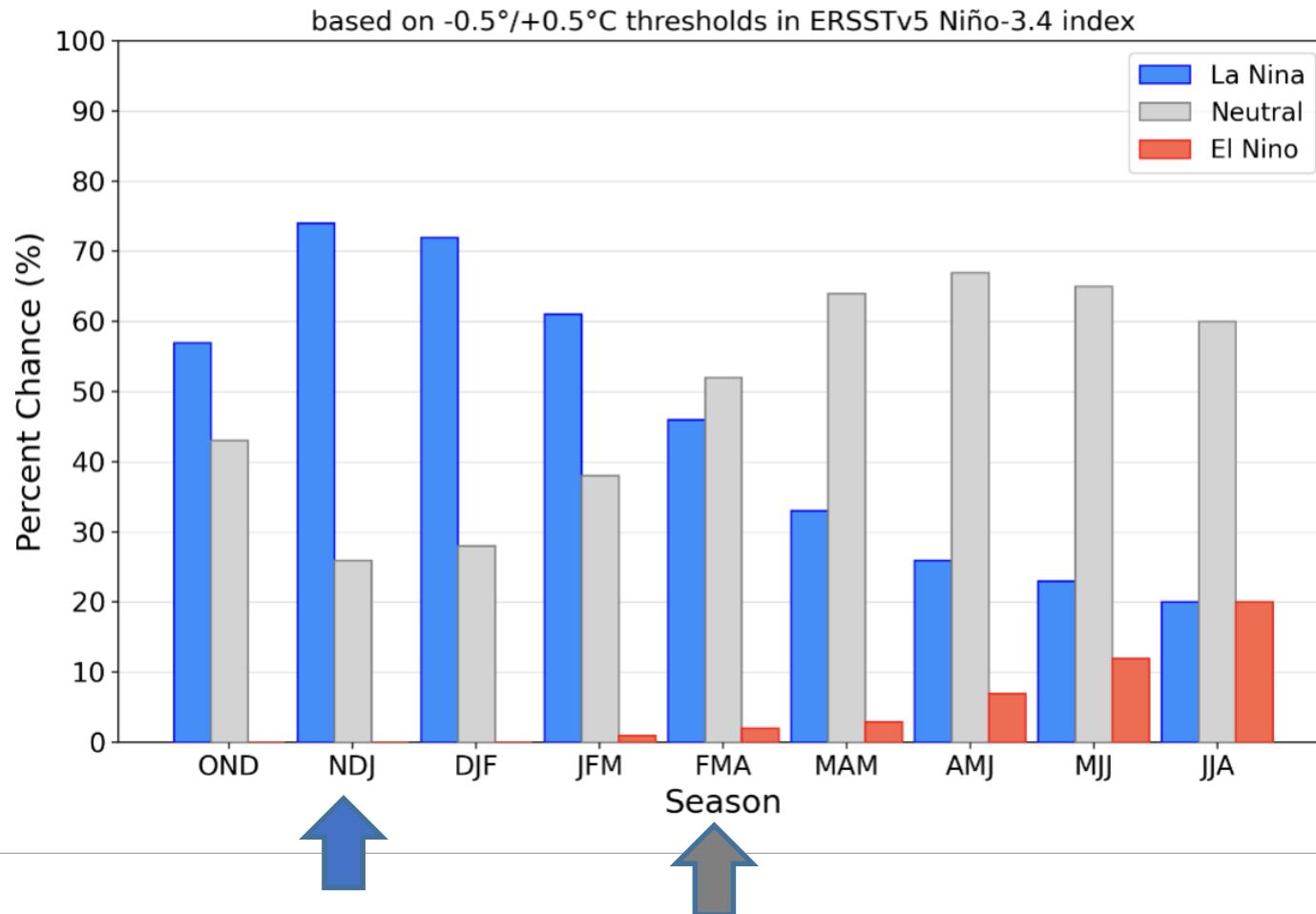


Figure provided by the International Research Institute (IRI) for Climate and Society (updated 19 November 2024).

# Previsão do “ENSO”

Official NOAA CPC ENSO Probabilities (issued November 2024)



# Previsão Sazonal de Chuva Multi-Modelo

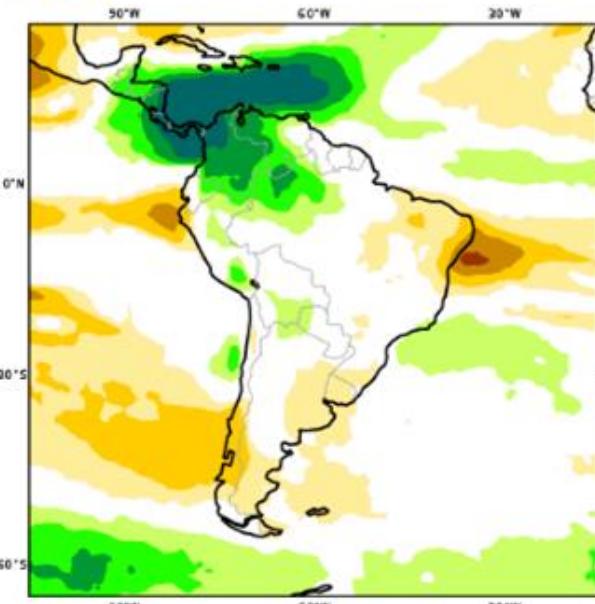
Dezembro-Janeiro-Fevereiro

C3S multi-system seasonal forecast

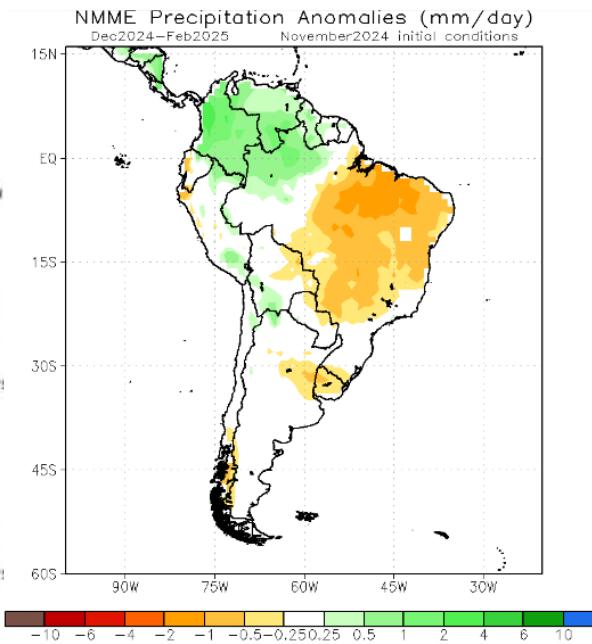
Prob(most likely category of precipitation)

Nominal forecast start: 01/11/24

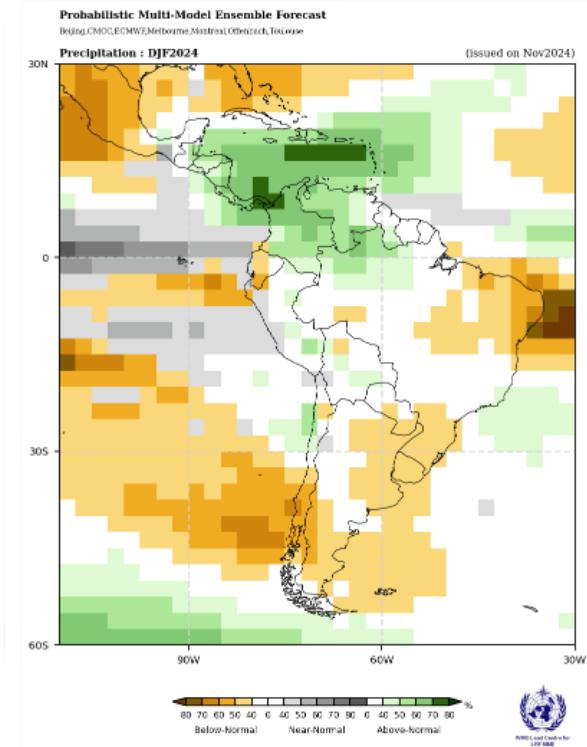
Unweighted mean



Modelos Europeus



Modelos Norte Americanos



Modelos da WMO