



# CEMADEN

**Centro Nacional de Monitoramento e  
Alertas de Desastres Naturais**

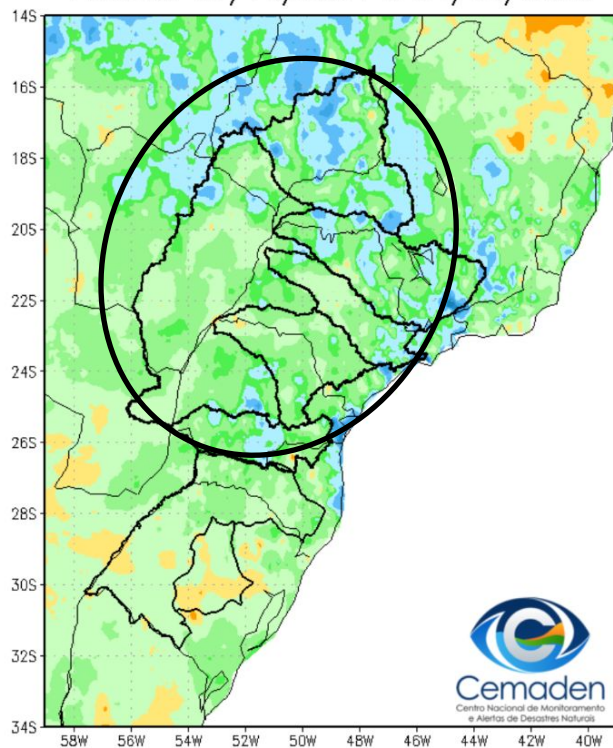
## Monitoramento e Previsões para a Bacia do rio Paraná

**25 de abril de 2025**

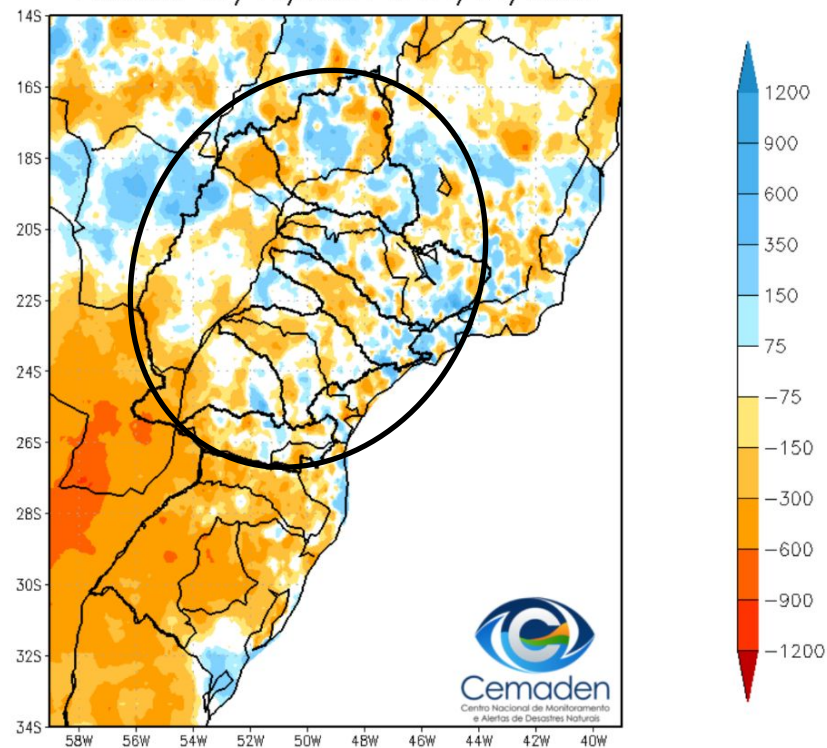


# Precipitação acumulada no ano hidrológico 01/10/2024 a 24/04/2025

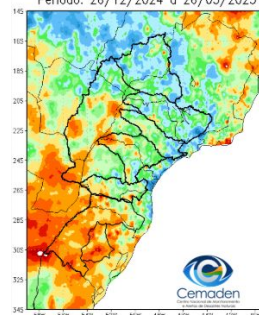
Precipitação Acumulada (mm) A.S.  
Período: 01/10/2024 a 24/04/2025



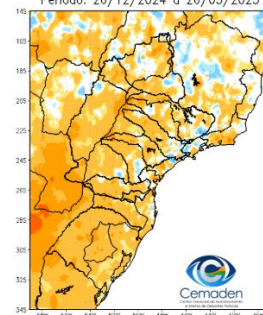
Anomalia de Precipitação (mm) A.S.  
Período: 01/10/2024 a 24/04/2025



Precipitação Acumulada (mm) A.S.  
Período: 26/12/2024 a 26/03/2025



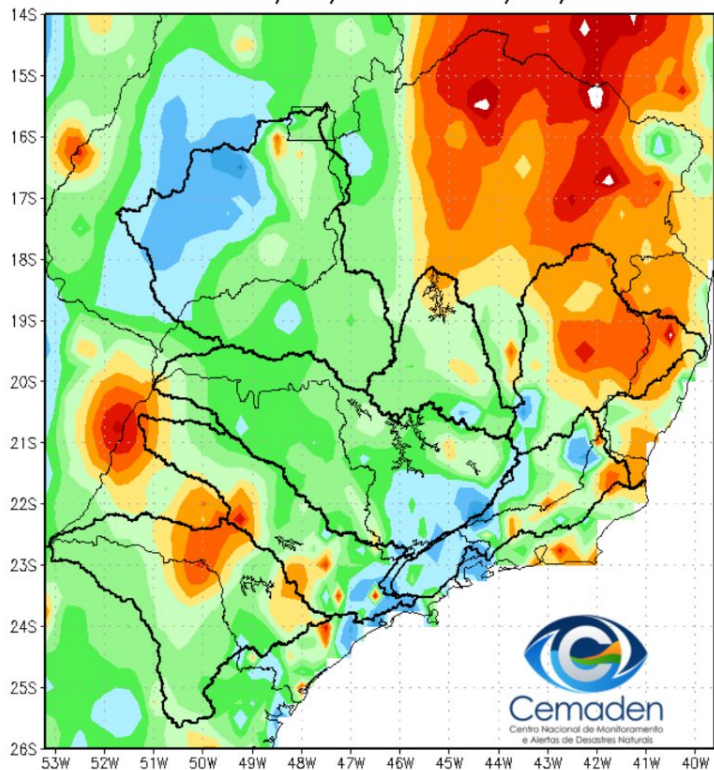
Anomalia de Precipitação (mm) A.S.  
Período: 26/12/2024 a 26/03/2025



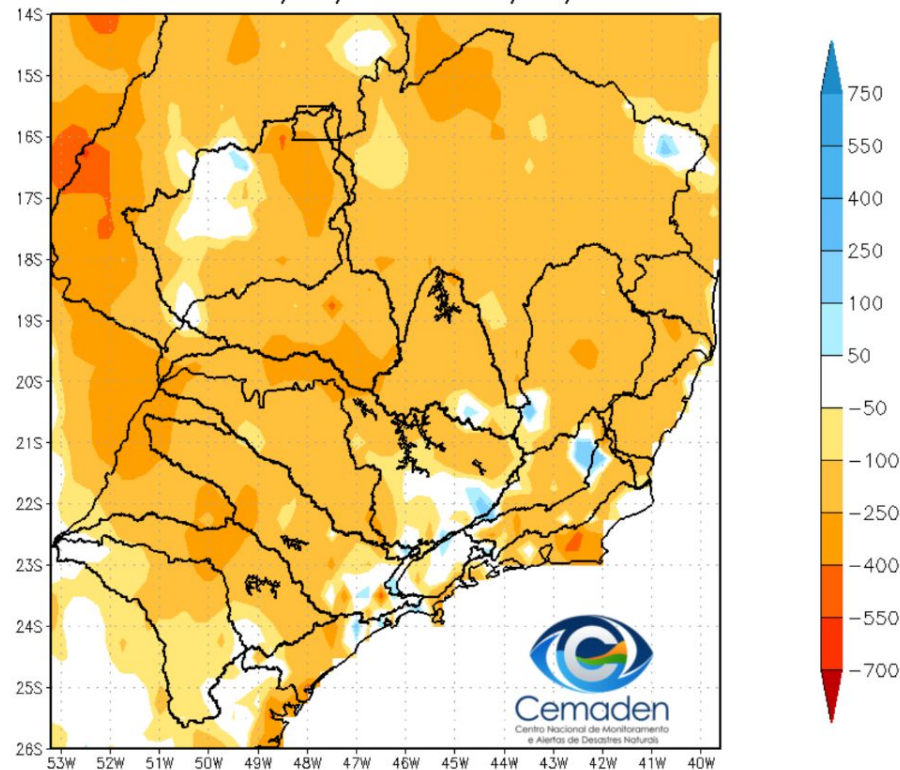


# Precipitação acumulada nos últimos 90 dias

Precipitação Acumulada (mm) A.S.  
Período: 24/01/2025 a 24/04/2025

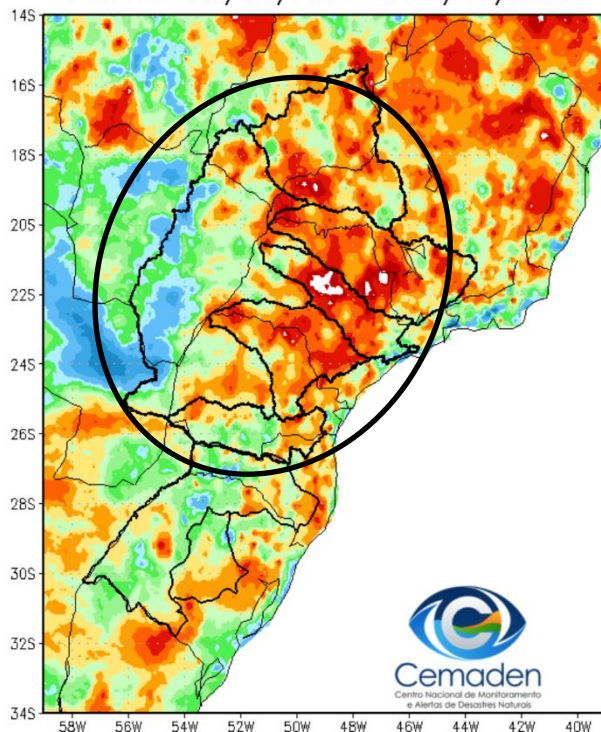


Anomalia de Precipitação (mm) A.S.  
Período: 24/01/2025 a 24/04/2025

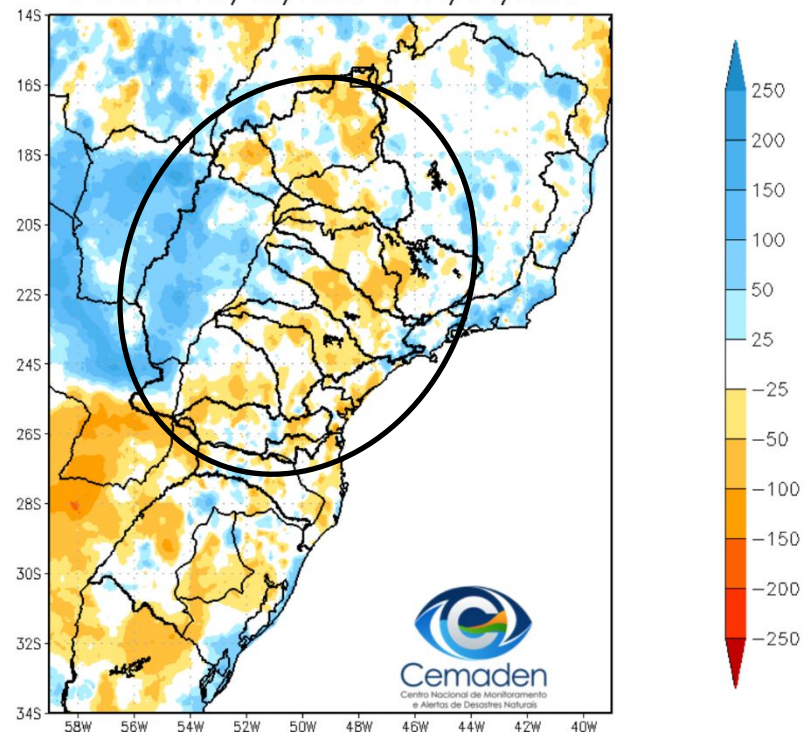


## Precipitação acumulada nos últimos 30 dias

Precipitação Acumulada (mm) A.S.  
Período: 25/03/2025 a 24/04/2025



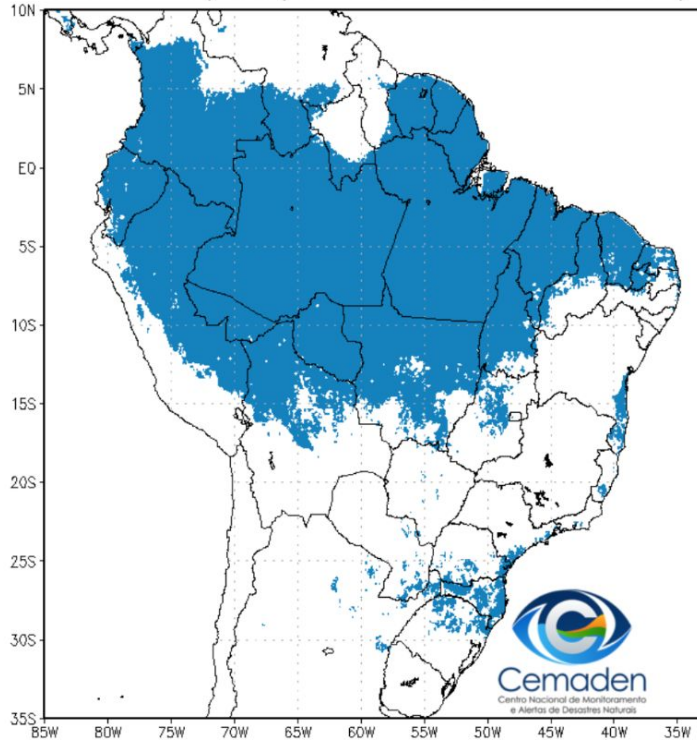
Anomalia de Precipitação (mm) A.S.  
Período: 25/03/2025 a 24/04/2025



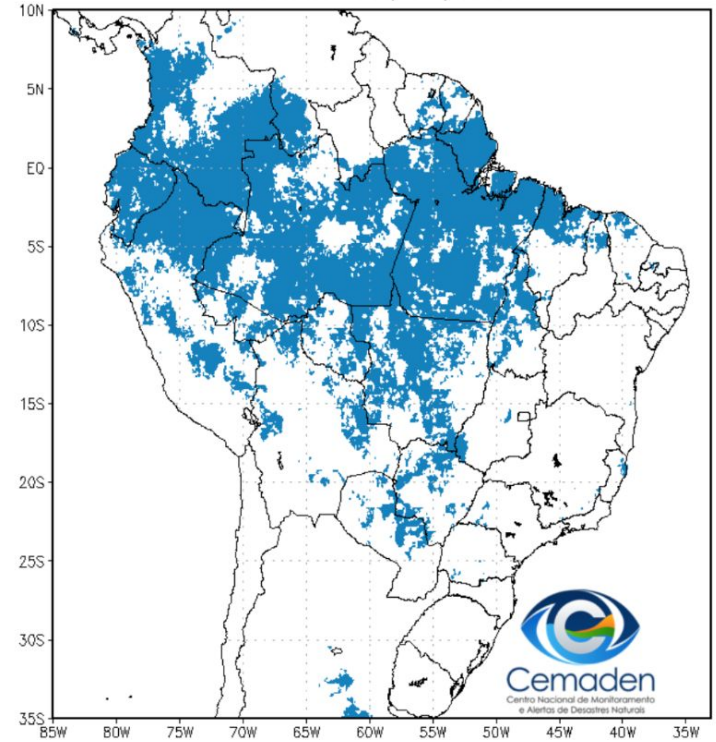


# Situação da Estação Chuvosa

Climatologia da Precipitação (2001–2024)  
Inferior 2 mm/dia por 4 de 5 dias Período: 24/04

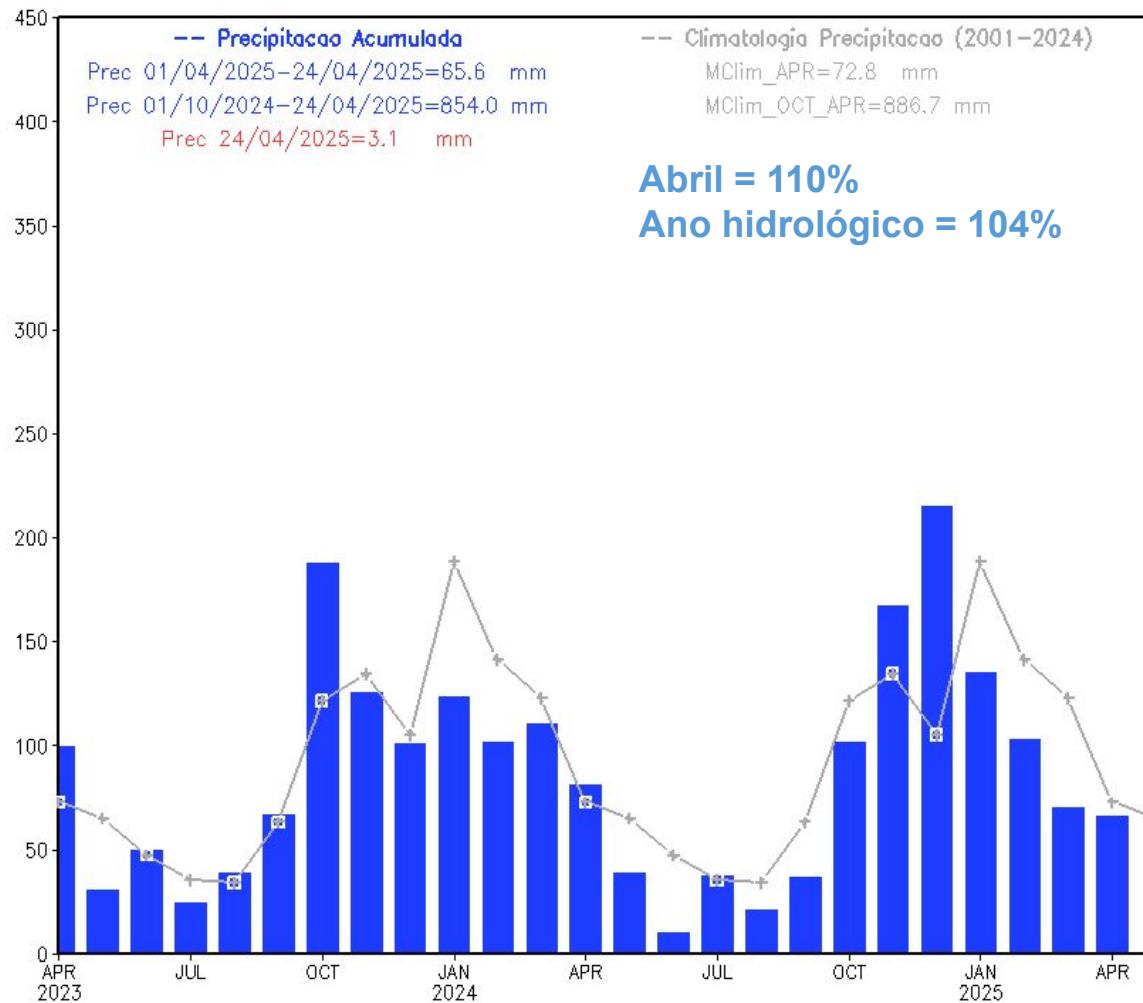


Precipitação Inferior 2 mm/dia por 4 de 5 dias  
Período: 24/04/2025



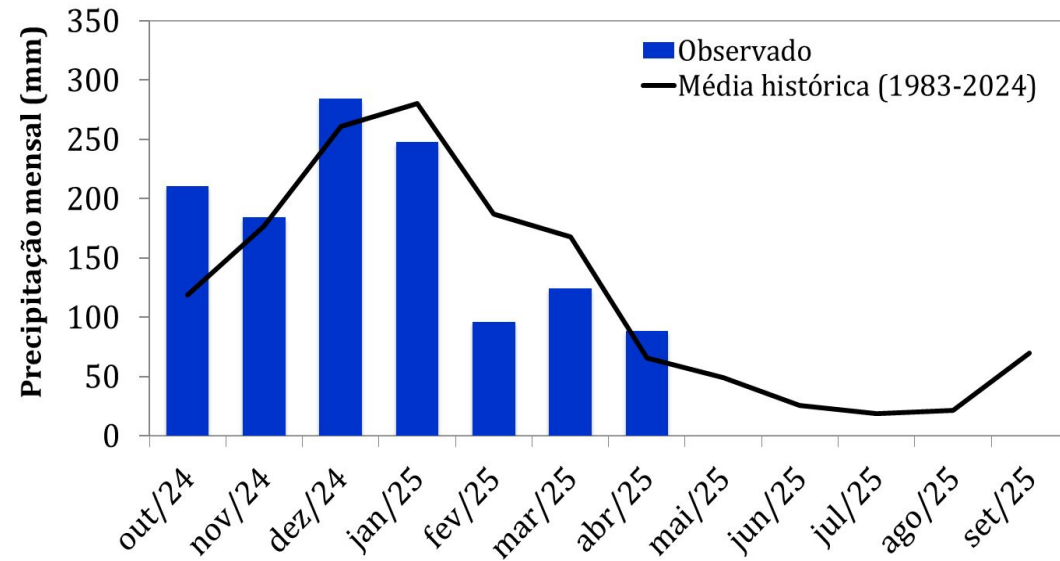
# Precipitação acumulada nos últimos 24 meses

## Precipitação Bacia do Rio Parana desde APR 2023





# Monitoramento UHE Furnas



## Precipitação

### Estação Chuvosa - Out a Mar – 1192 mm

2023/2024: 1088 mm (**91% da MLT**)

2024/2025: 1148 mm (**96% da MLT**)

### Estação Seca - Abr a Set – 250 mm

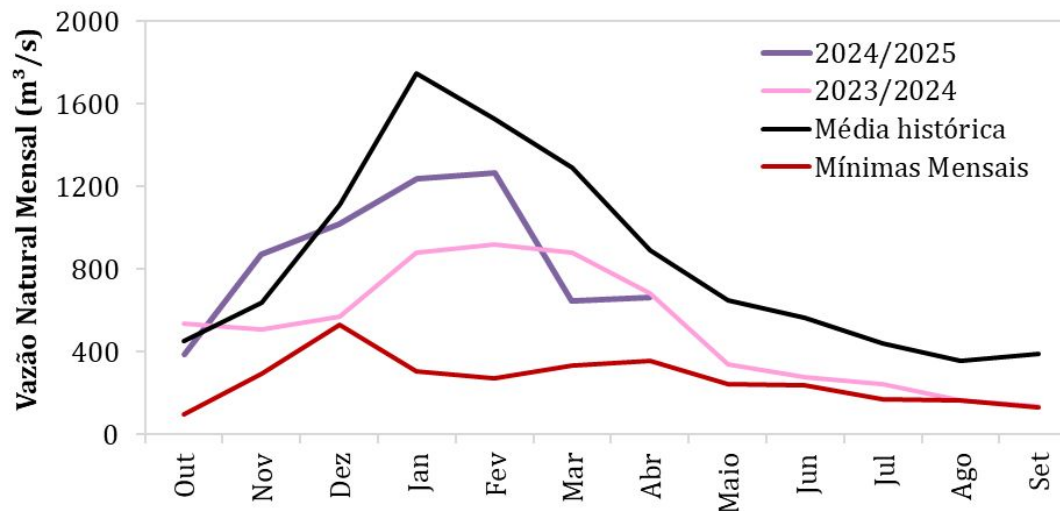
2023: 224 mm (**90% da MLT**)

2024: 102 mm (**41% da MLT**)

Mar//2025: 124 mm (**74% da MLT**)

Abr/2025\*: 88 mm (**135% da MLT**)

\*Até 23/04/2025



## Vazão

### Estação Chuvosa - Out a Mar – 1130 m³/s

2023/2024: 716 m³/s (**63% da MLT**)

2024/2025: 906 m³/s (**80% da MLT**)

### Estação Seca - Abr a Set – 551 m³/s

2023: 495 m³/s (**108% da MLT**)

2024: 309 m³/s (**56% da MLT**)

Mar/25: 648 m³/s (**50% da MLT**)

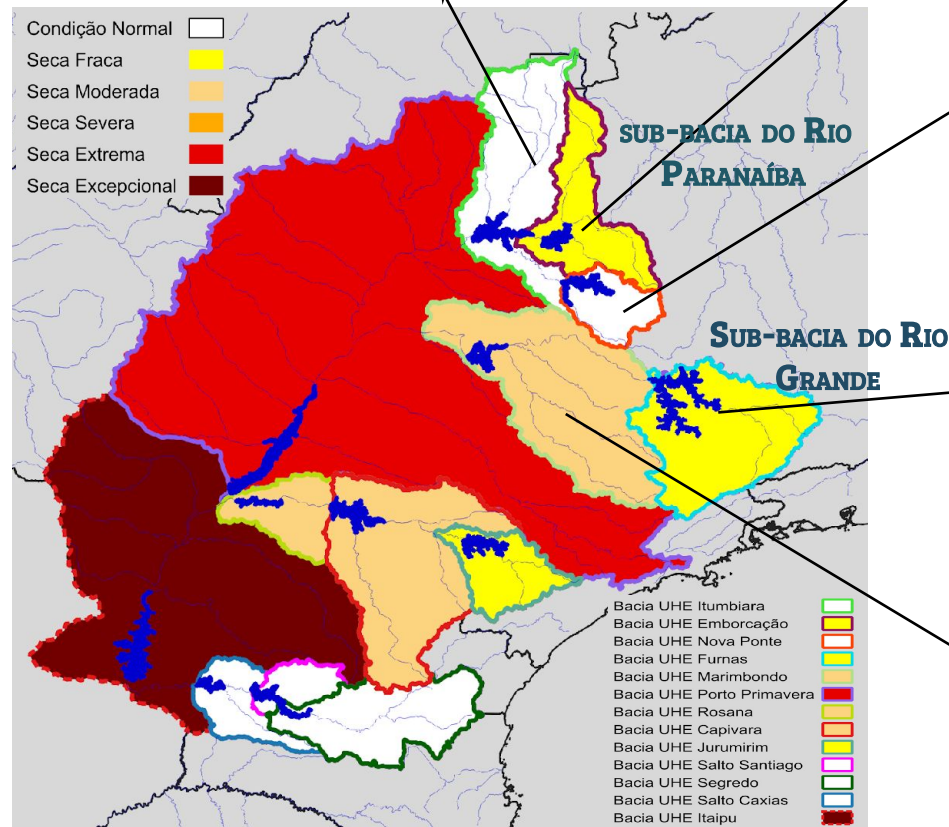
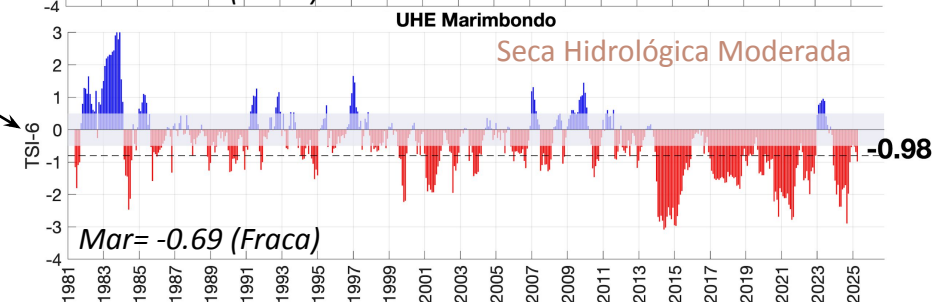
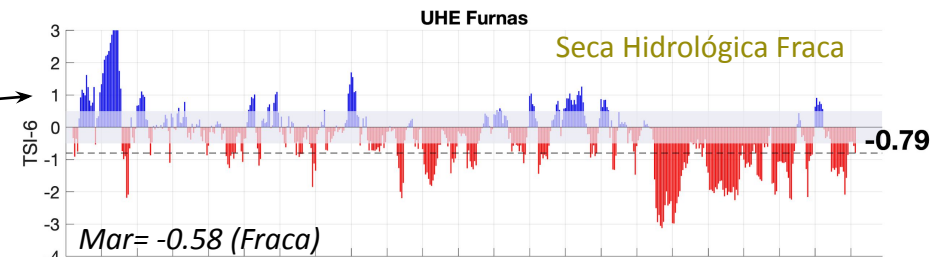
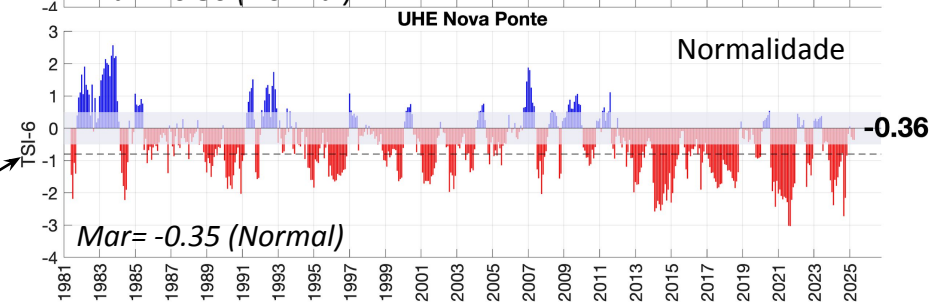
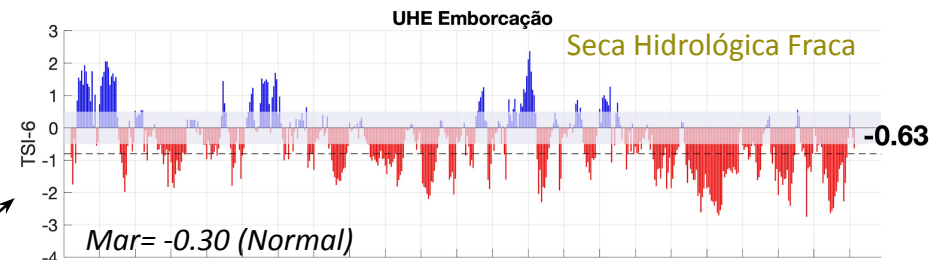
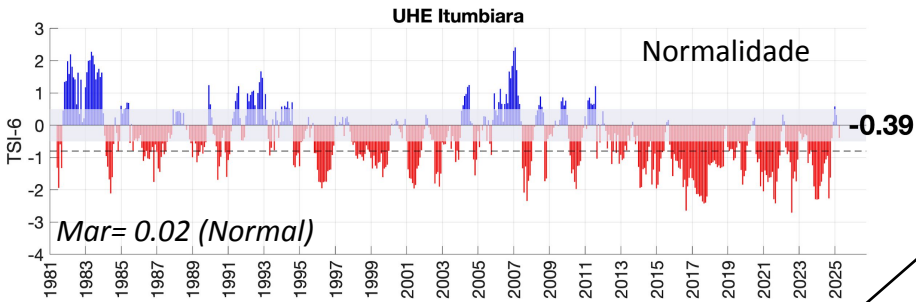
Abr/25\*\*: 663 m³/s (**74% da MLT**)

23/Abr/25: 596 m³/s (**67% da MLT**)

\*\*Até 23/04/2025

# BACIA DO RIO PARANÁ

Abril/2025

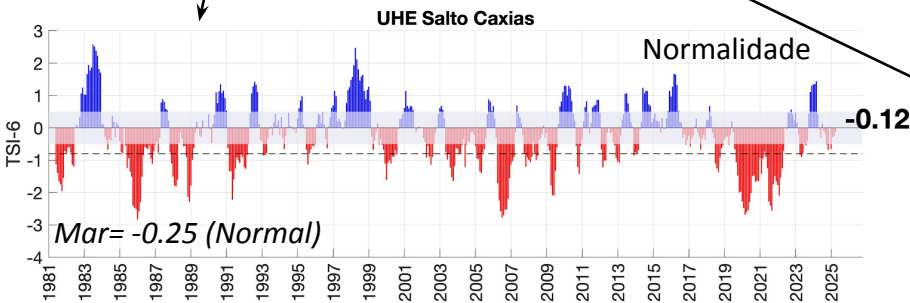
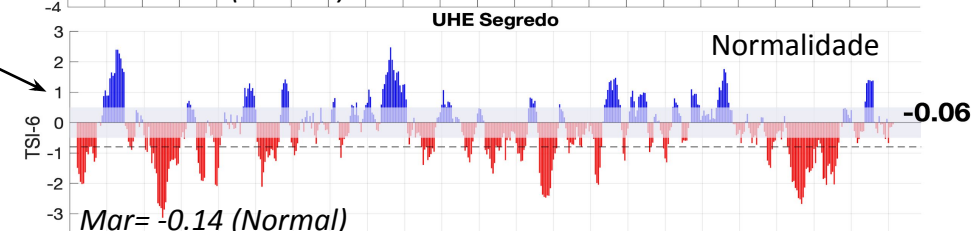
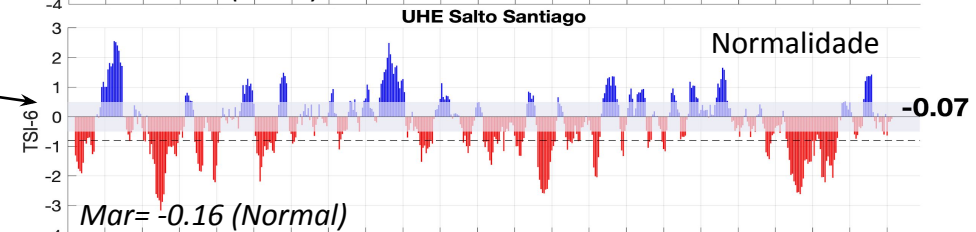
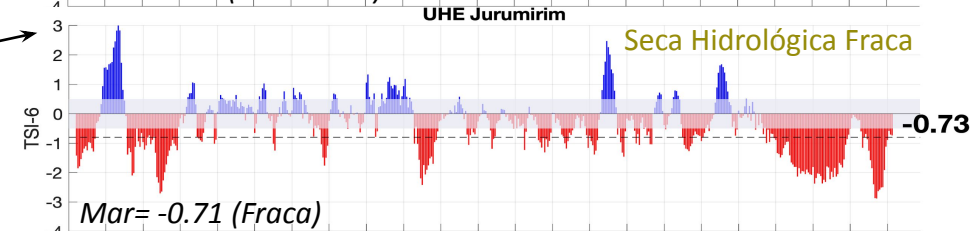
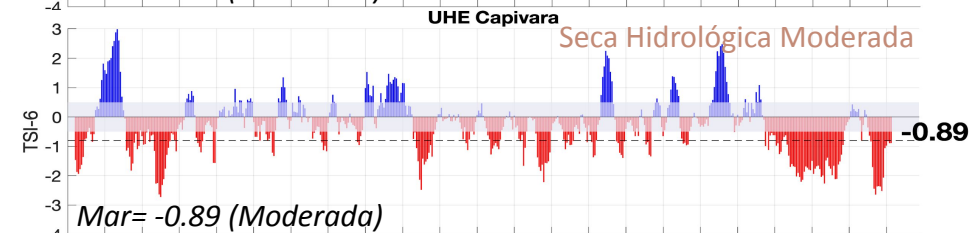
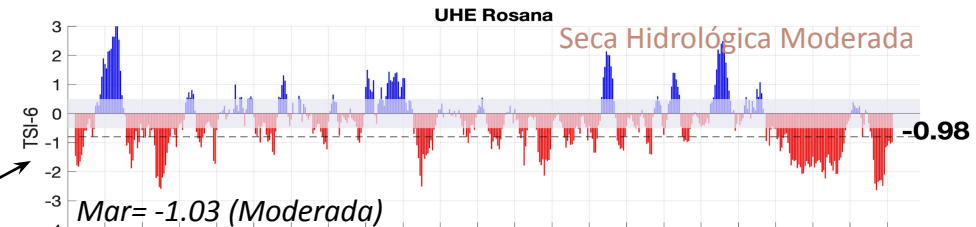
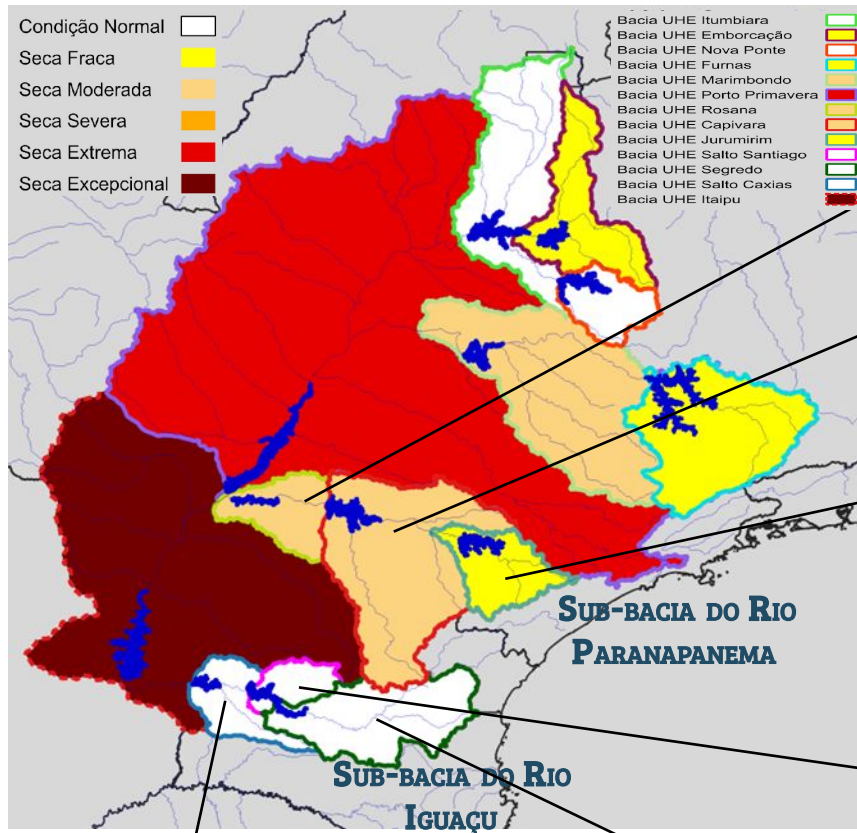




# BACIA DO RIO PARANÁ

**Abril/2025**

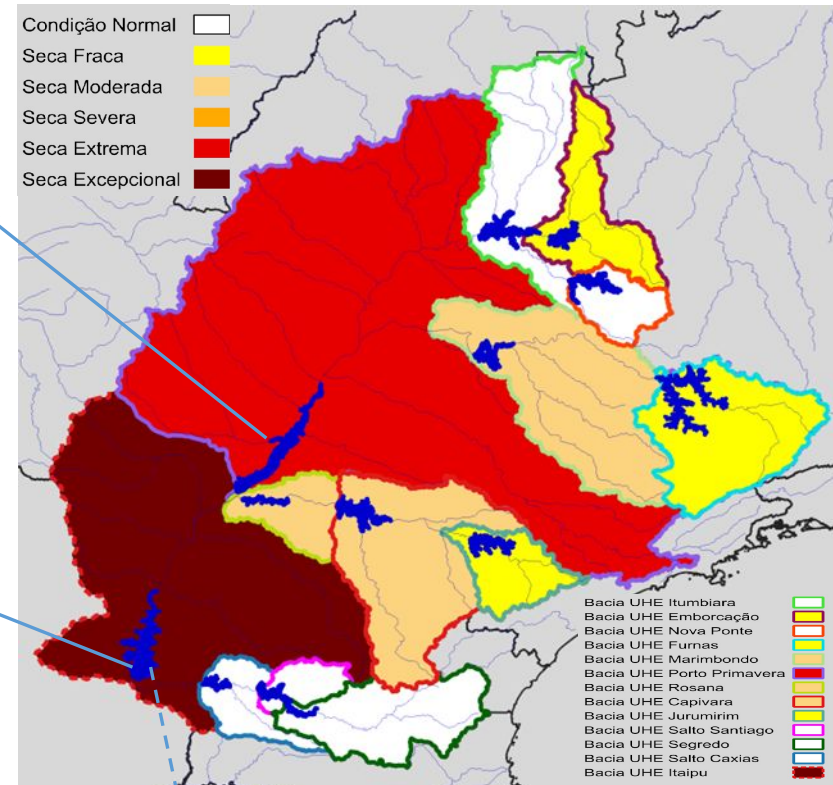
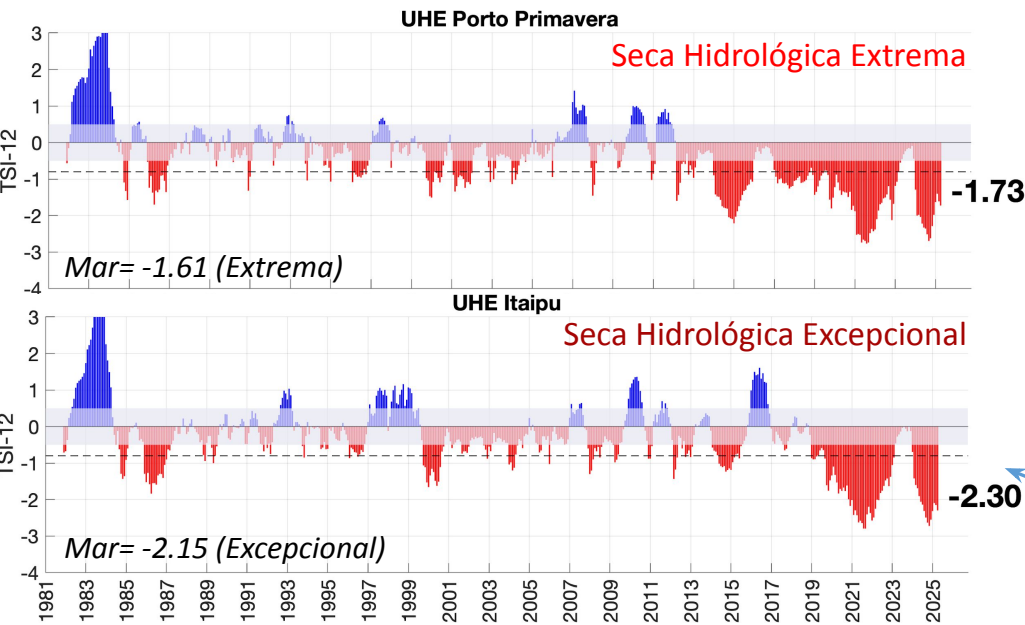
Índice de Seca Bivariado (Chuva-Vazão) – TSI 6



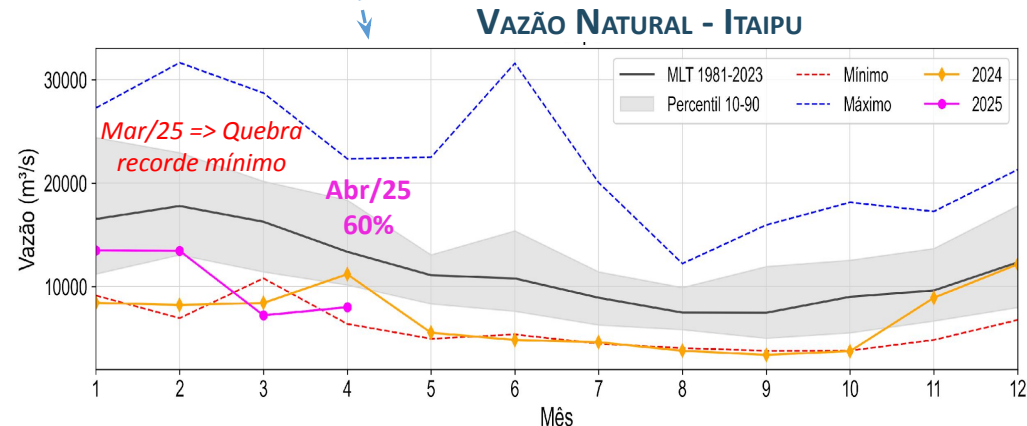
# BACIA DO RIO PARANÁ

Abril/2025

## Índice de Seca Bivariado (Chuva-Vazão) – TSI 12



Série de dados = Jan/1981- Abr/2025

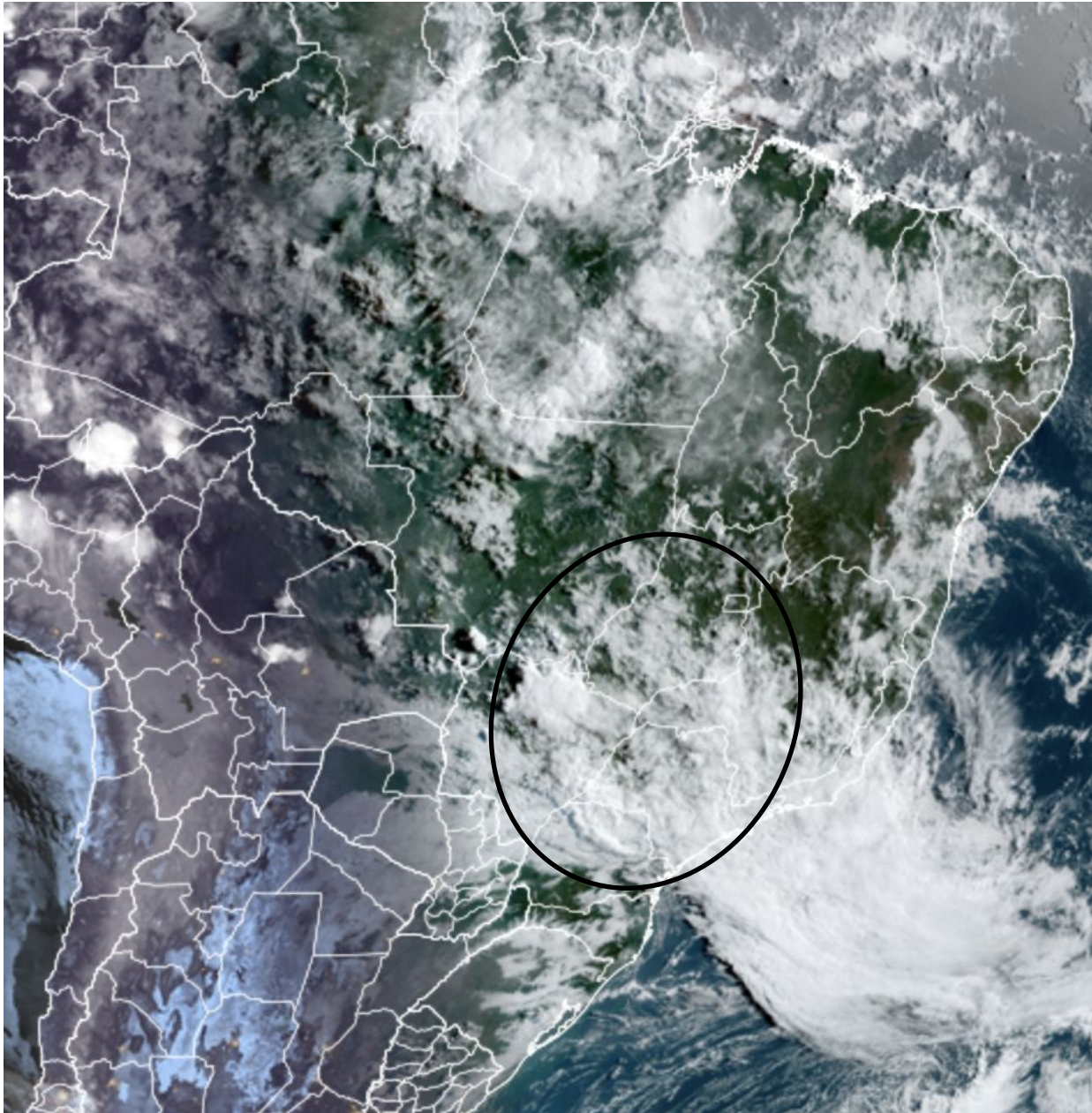


Fonte: CEMADEN/MCTI

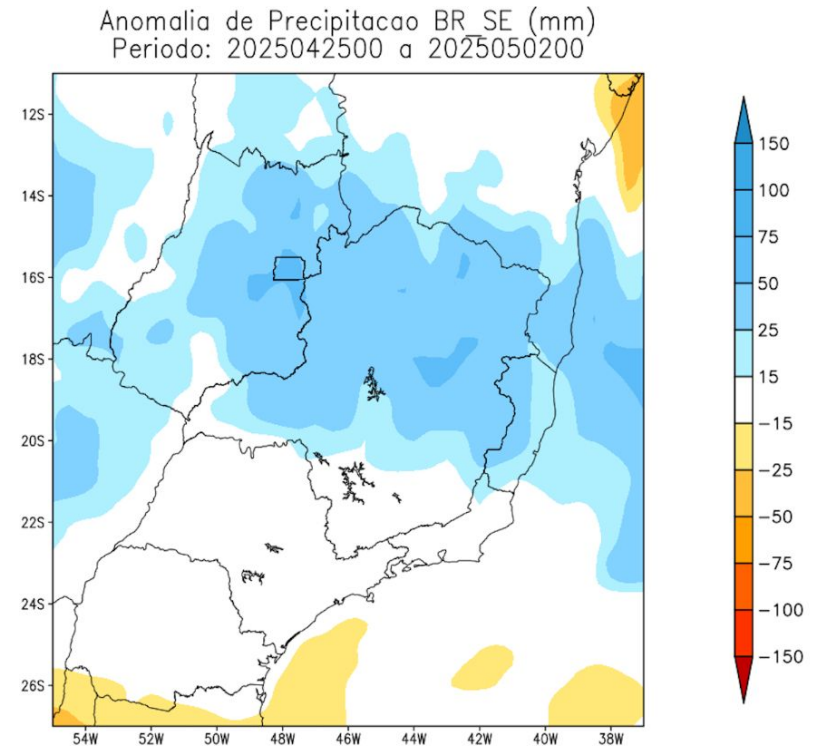
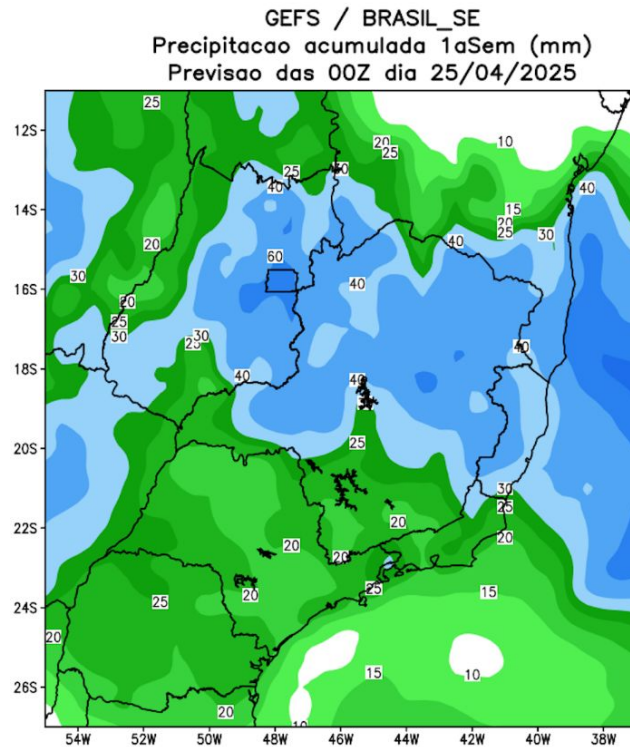
Dados: Precipitação (CHIRPS) e Vazão (ONS e ANA)



## Situação meteorológica atual



# Previsão de chuva para os próximos 7 dias

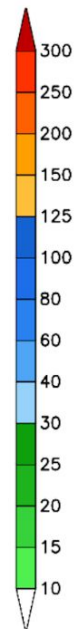
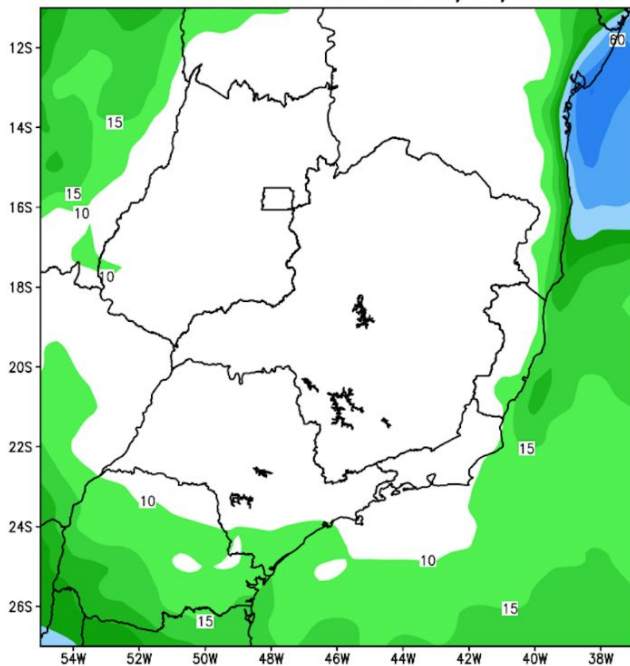


Fonte: GEFS/NOAA

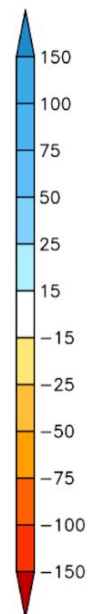
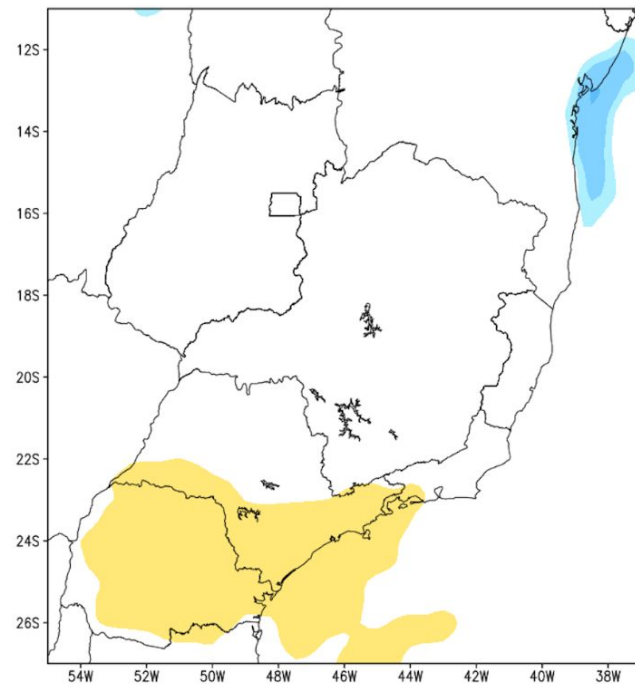


## Tendência para a 2ª Semana

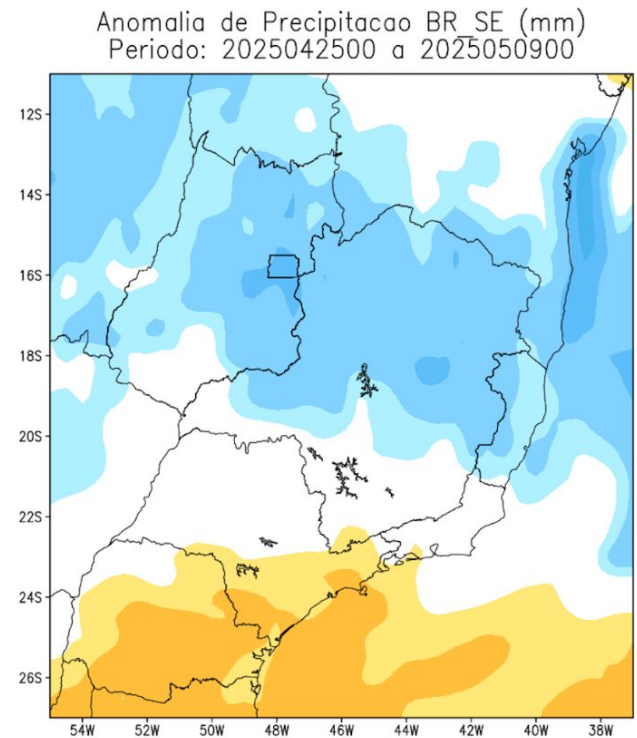
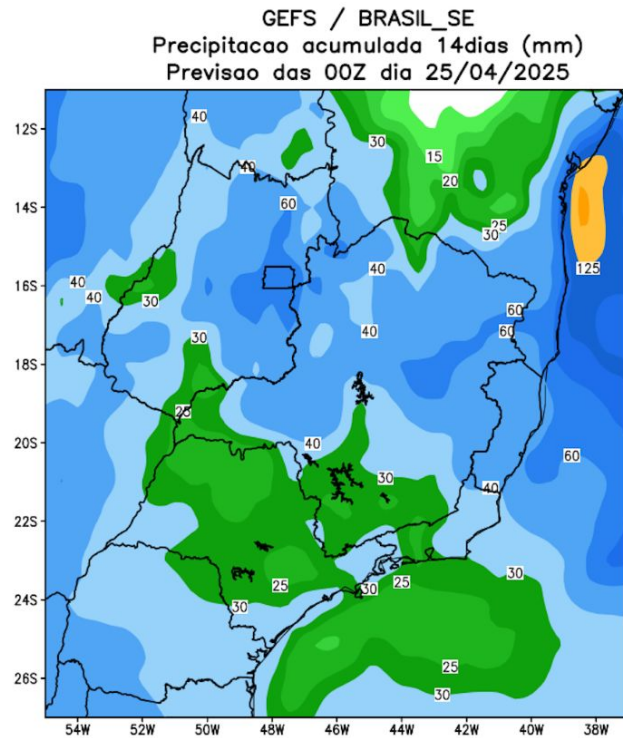
GEFS / BRASIL\_SE  
Precipitacao acumulada 2aSem (mm)  
Previsao das 00Z dia 25/04/2025



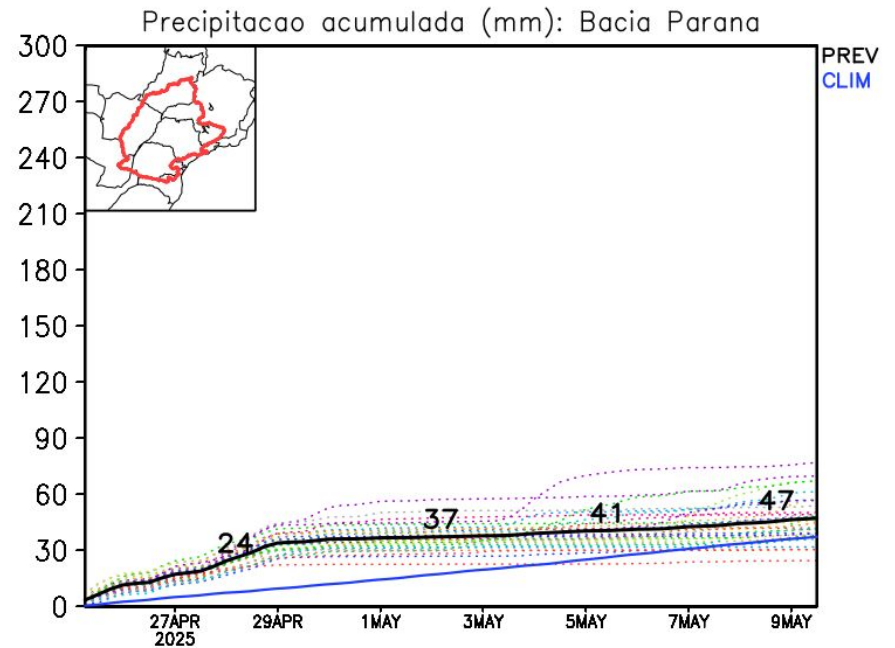
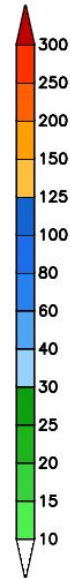
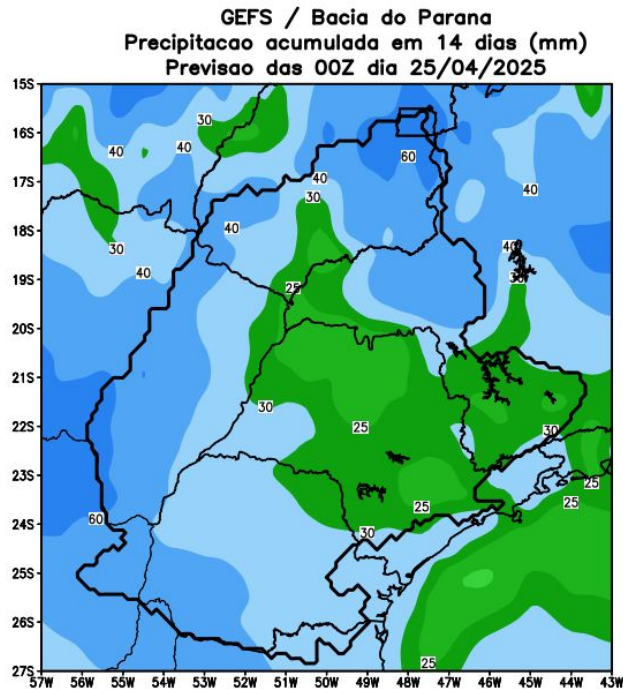
Anomalia de Precipitacao BR\_SE (mm)  
Periodo: 2025050300 a 2025050900



# Acumulado para as duas próximas semanas



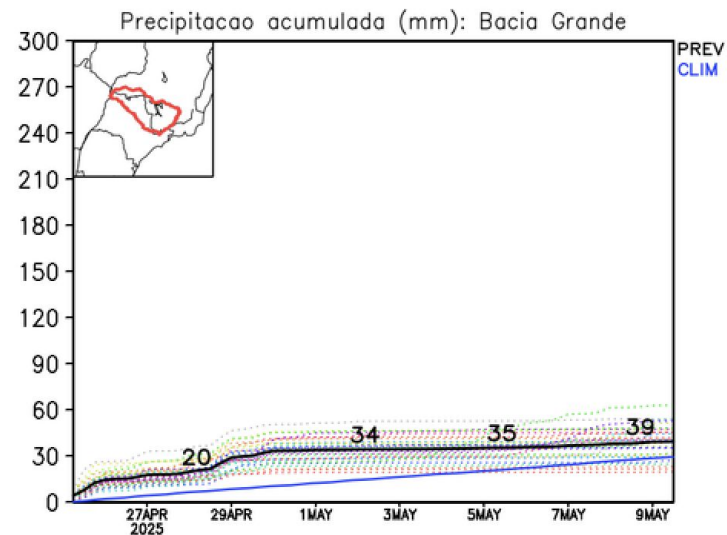
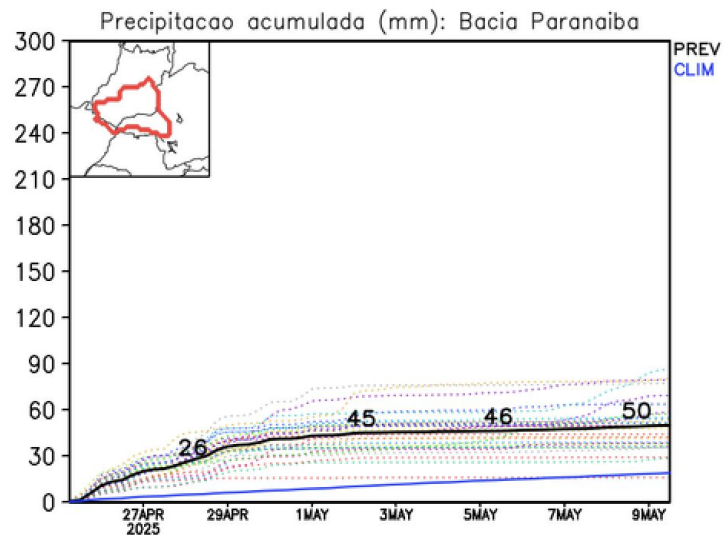
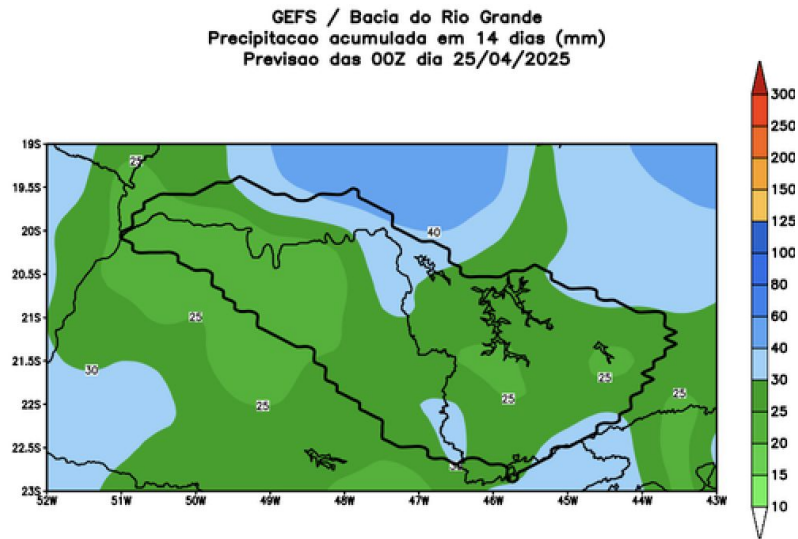
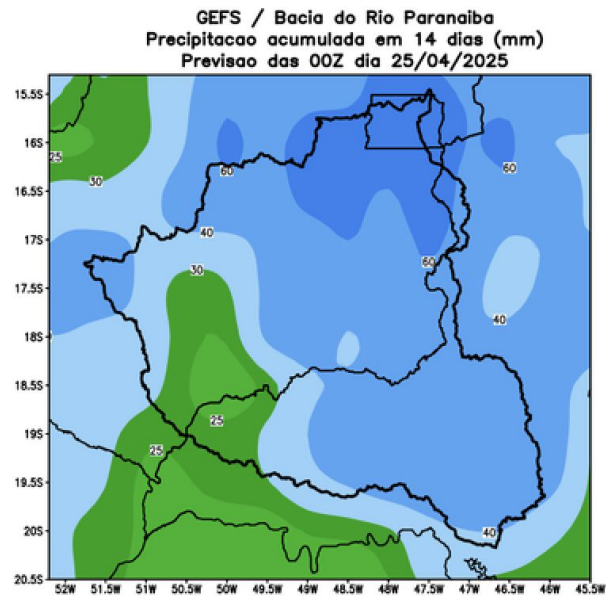
# Previsão de chuva para os próximos 7 dias



PREV  
CLIM

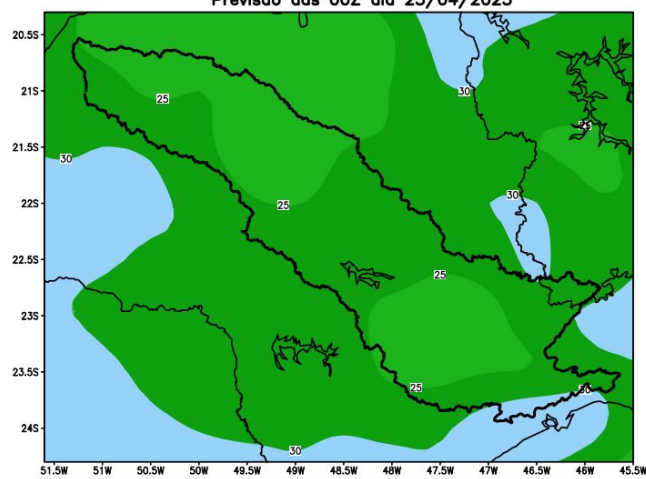


# Bacia do rios Paranaíba e Grande

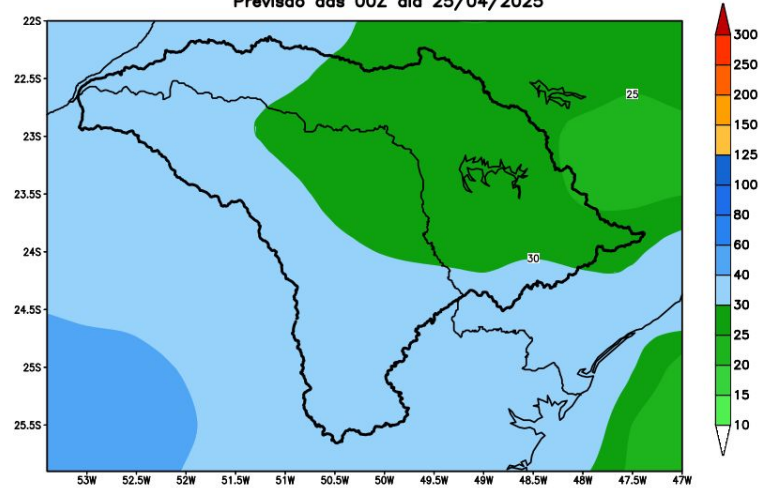


# Bacia do rios Tietê e Paranapanema

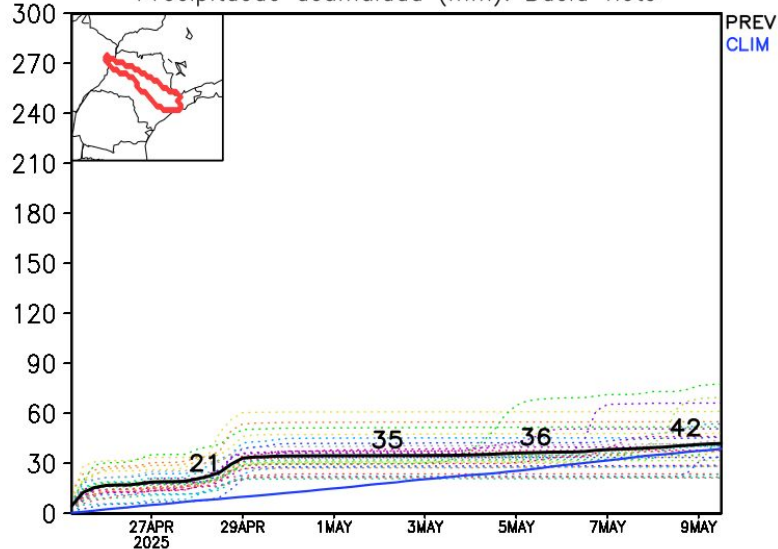
GEFS / Bacia do Rio Tiete  
Precipitacao acumulada em 14 dias (mm)  
Previsao das 00Z dia 25/04/2025



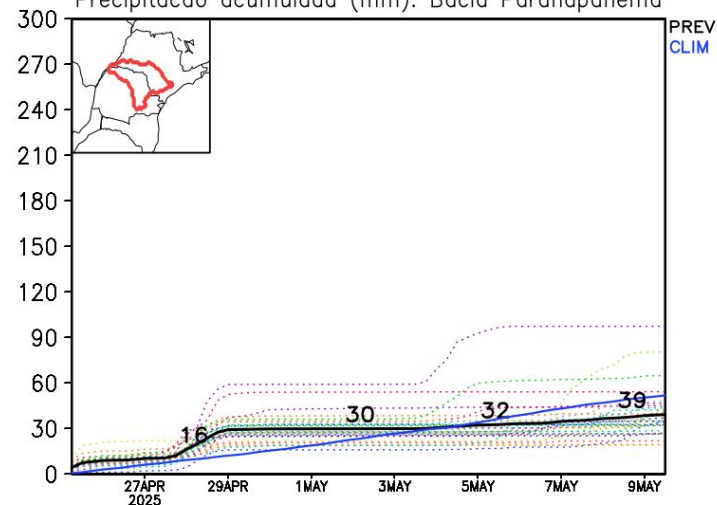
GEFS / Bacia do Rio Paranapanema  
Precipitacao acumulada em 14 dias (mm)  
Previsao das 00Z dia 25/04/2025



Precipitacao acumulada (mm): Bacia Tiete

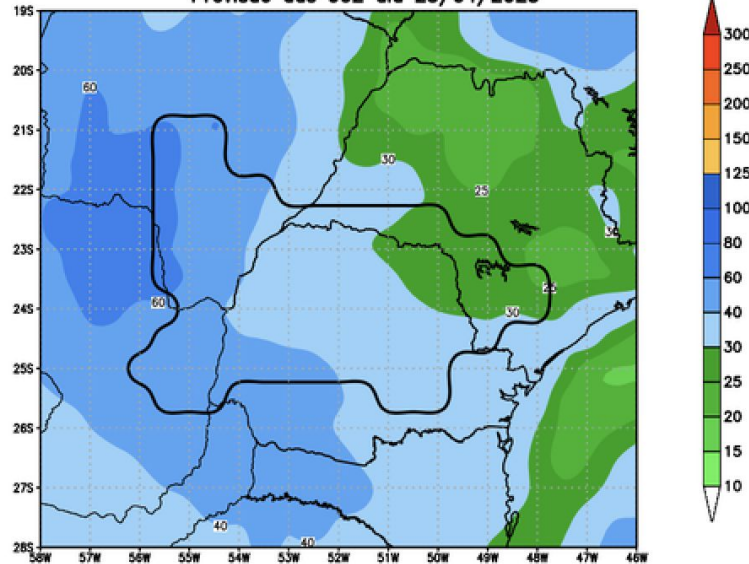


Precipitacao acumulada (mm): Bacia Paranapanema

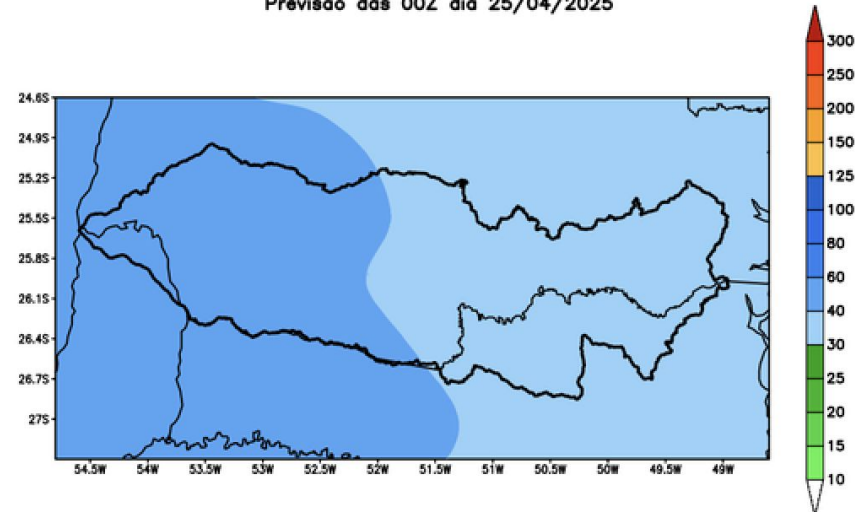


# Bacia do Itaipu e Iguaçu

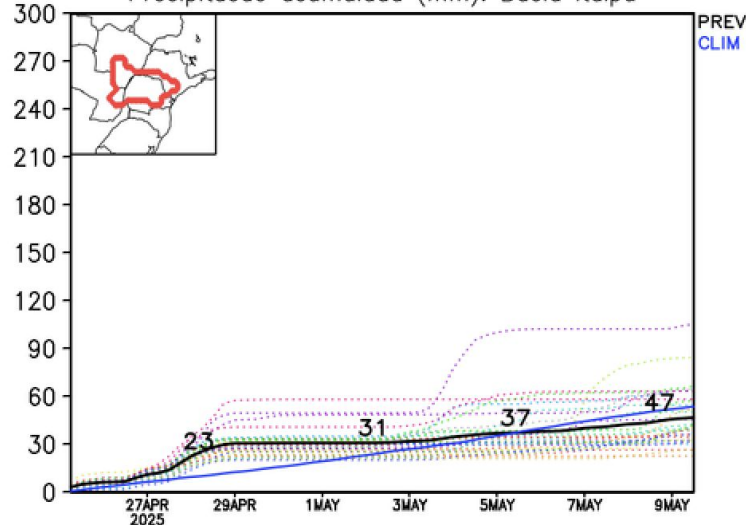
GEFS / Itaipu  
Precipitacao acumulada em 14 dias (mm)  
Previsao das 00Z dia 25/04/2025



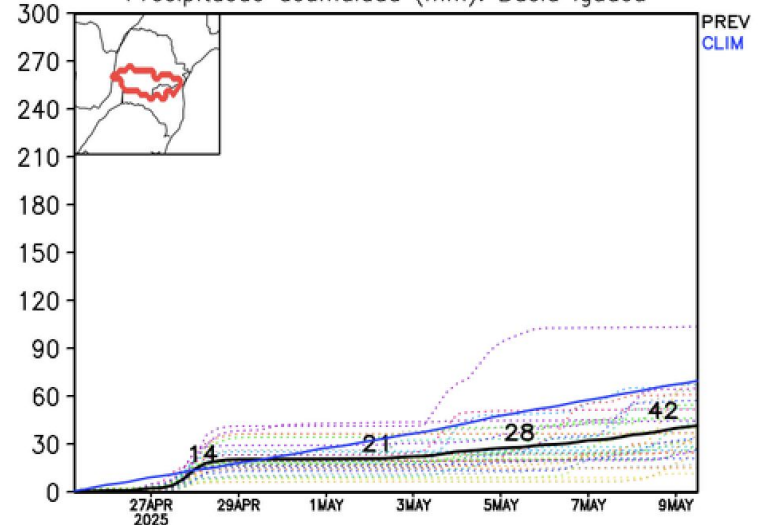
GEFS / Bacia do Rio Iguaçu  
Precipitacao acumulada em 14 dias (mm)  
Previsao das 00Z dia 25/04/2025



Precipitacao acumulada (mm): Bacia Itaipu



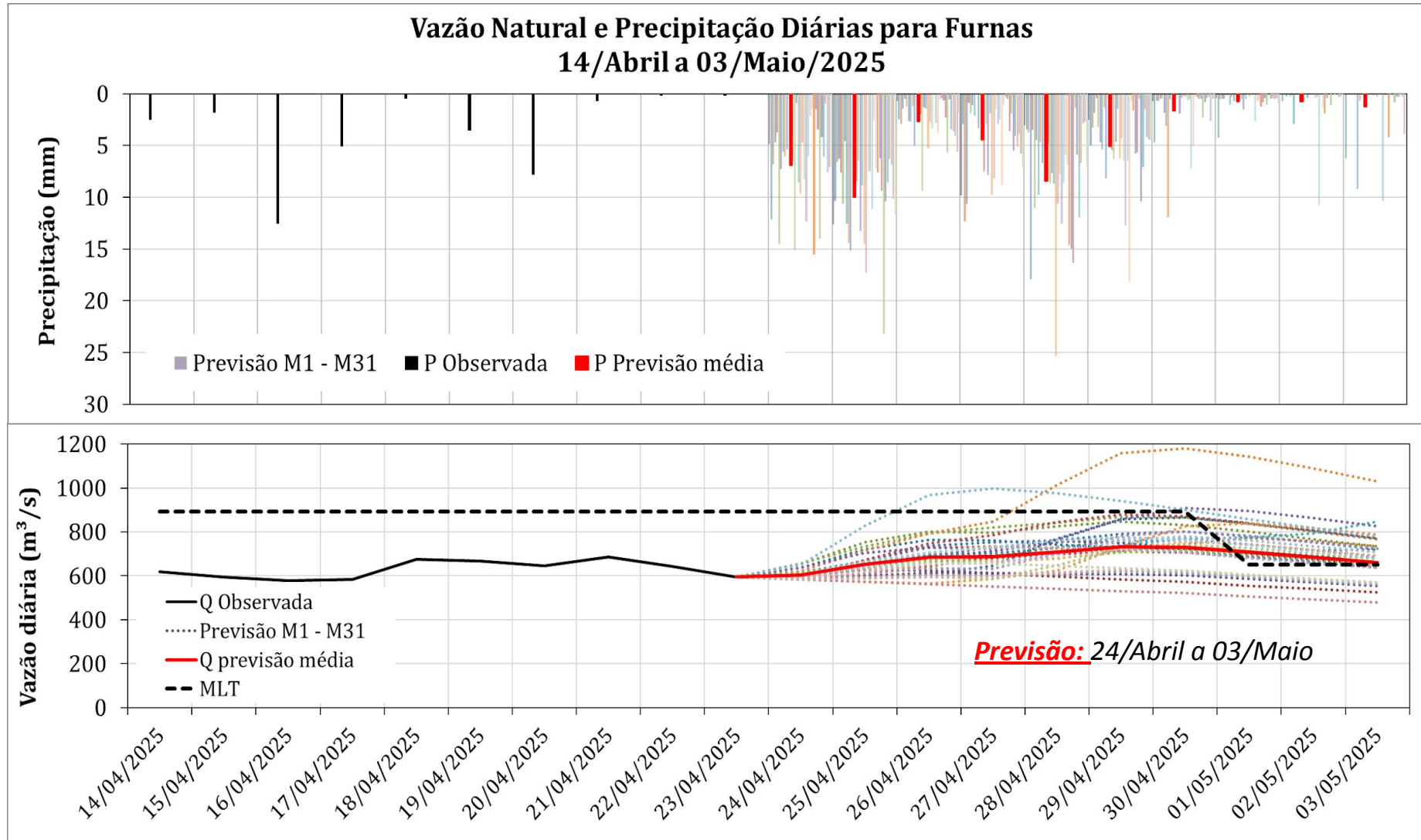
Precipitacao acumulada (mm): Bacia Iguaçu





# Furnas: Previsão de Vazão (modelo hidrológico PDM-CEMADEN)

Vazão Natural e Precipitação Diárias para Furnas  
14/Abril a 03/Maio/2025

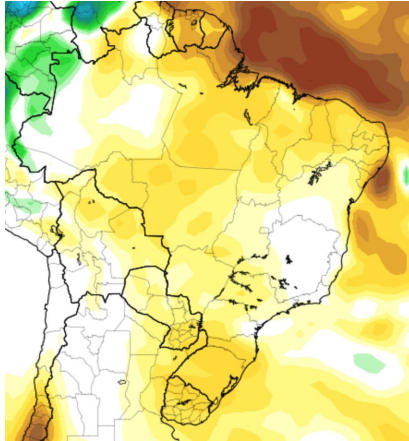


**Previsão média para os próximos 10 dias: 686 m³/s**  
(MLT Abr= 894 m³/s; MLT Maio = 650 m³/s)

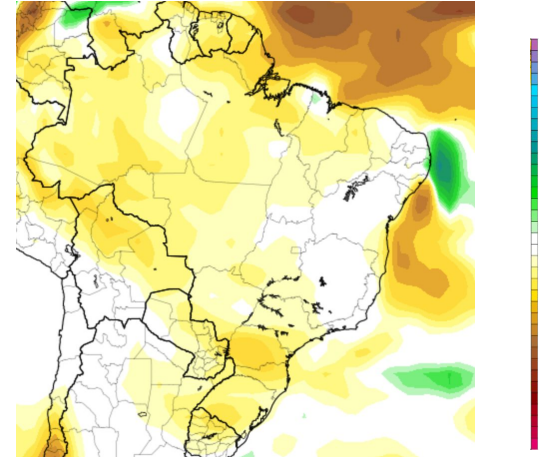
# Anomalia de Chuva

3a e 4a semanas

08-14 Maio

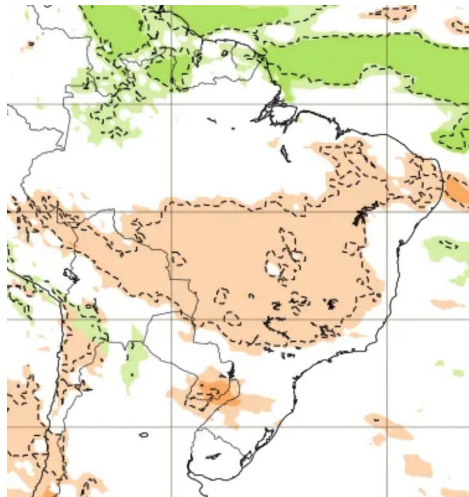


15-21 Maio



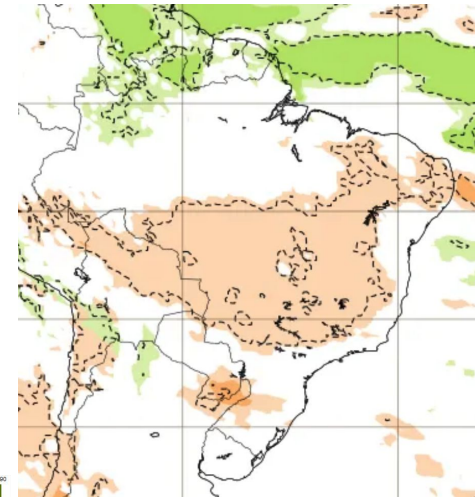
CFS/NOAA

12-18 Maio



ECMWF

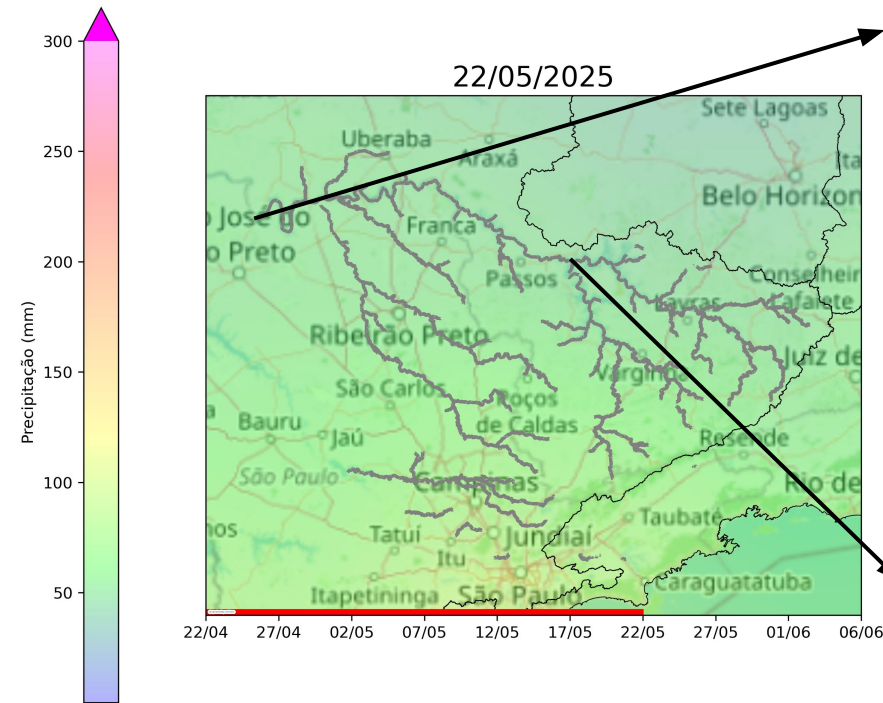
19-25 Maio



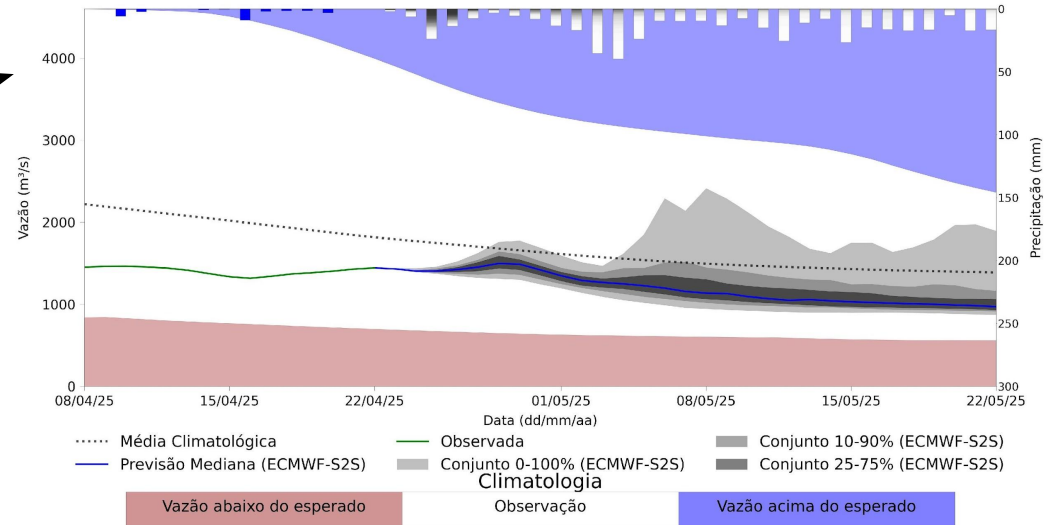
CFSv2 Accumulated Precip. Anomaly (mm)

# Previsão de vazão natural na Bacia do Rio Grande 30 dias (Modelo hidrológico MHD)

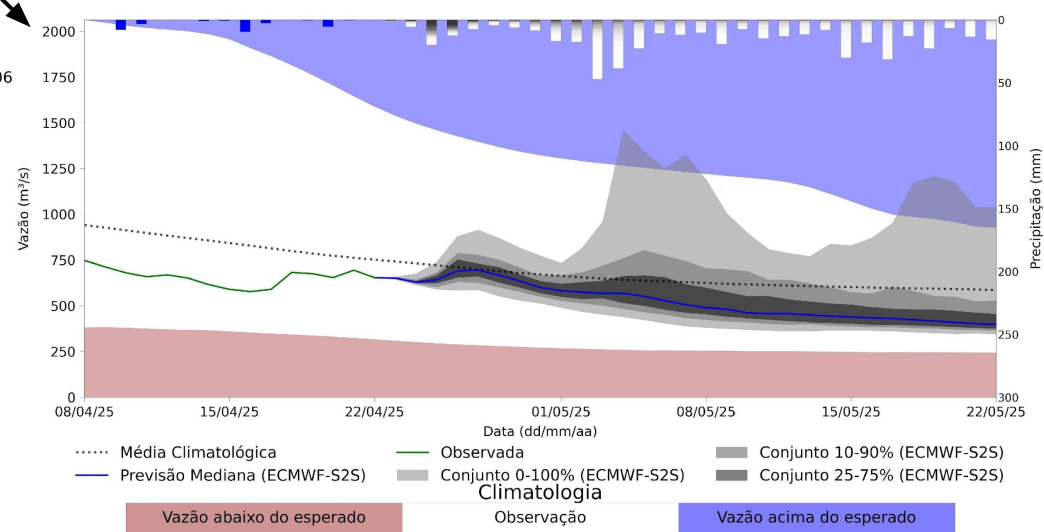
**PREVISÃO: 22/04/25 a 22/05/25**



## UHE Marimbondo



## UHE Furnas



Fonte: Meteorologia (INMET/MERGE); Vazão (ANA/ONS)

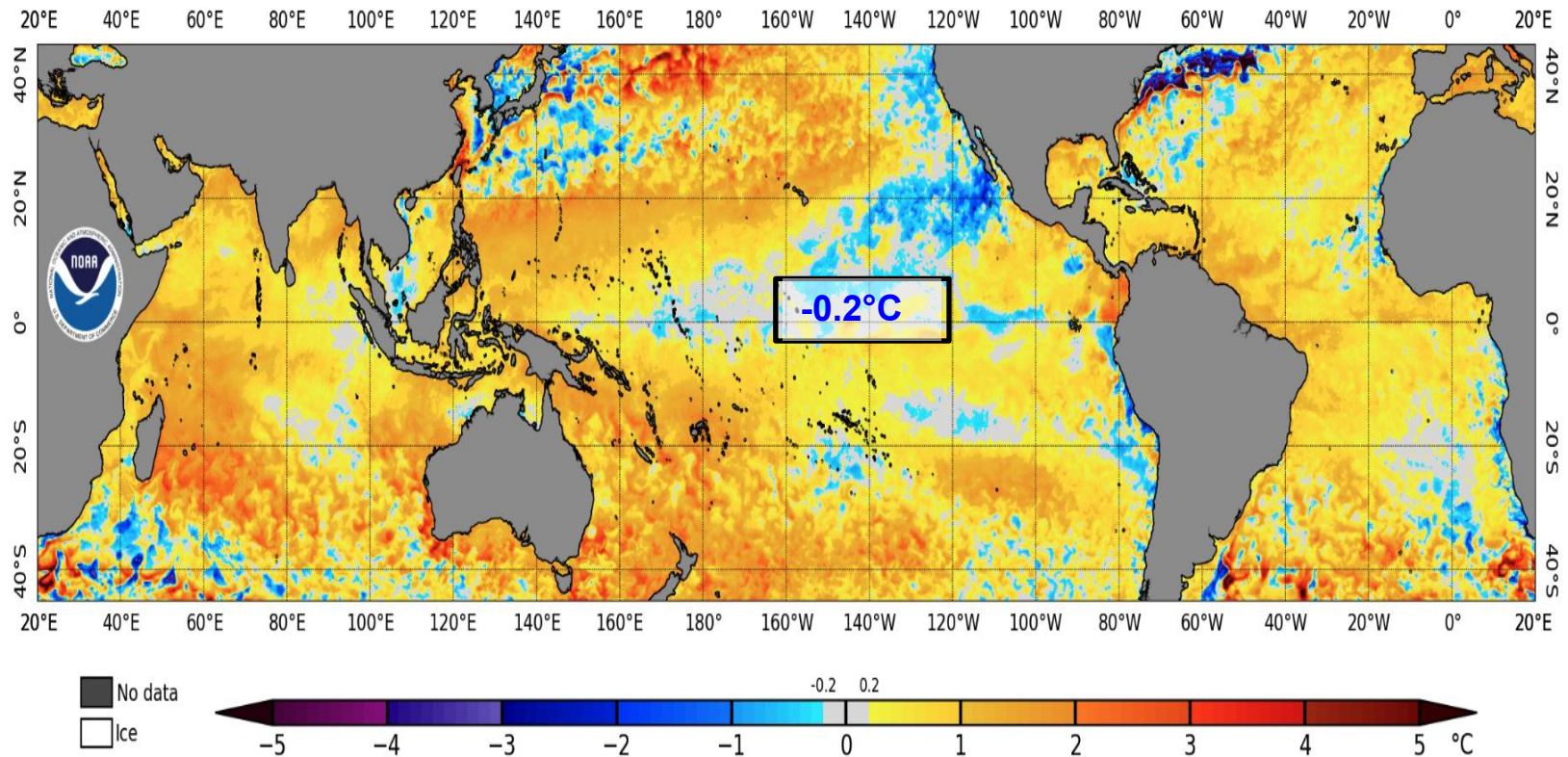
MLT: 1993-2023

Previsão Meteorológica: ECMWF-S2S



## Status Atual: Neutralidade

NOAA Coral Reef Watch Daily 5km SST Anomalies (v3.1) 23 Apr 2025



# Previsão do “ENSO”

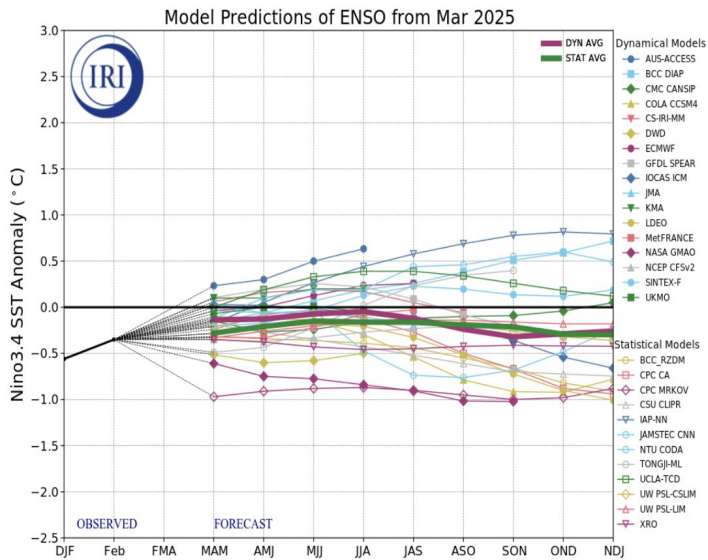
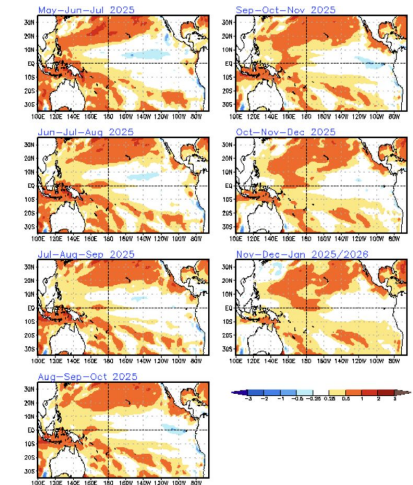
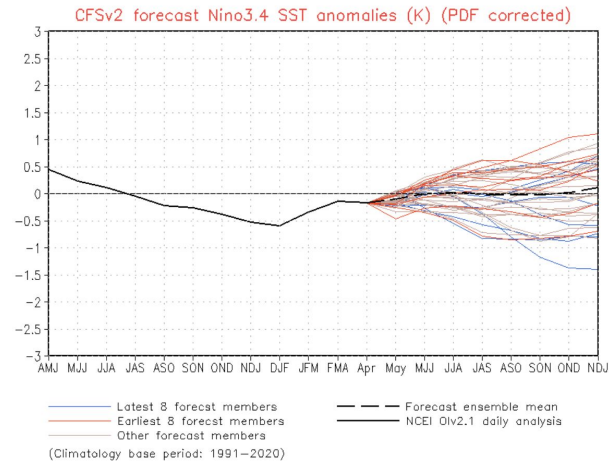
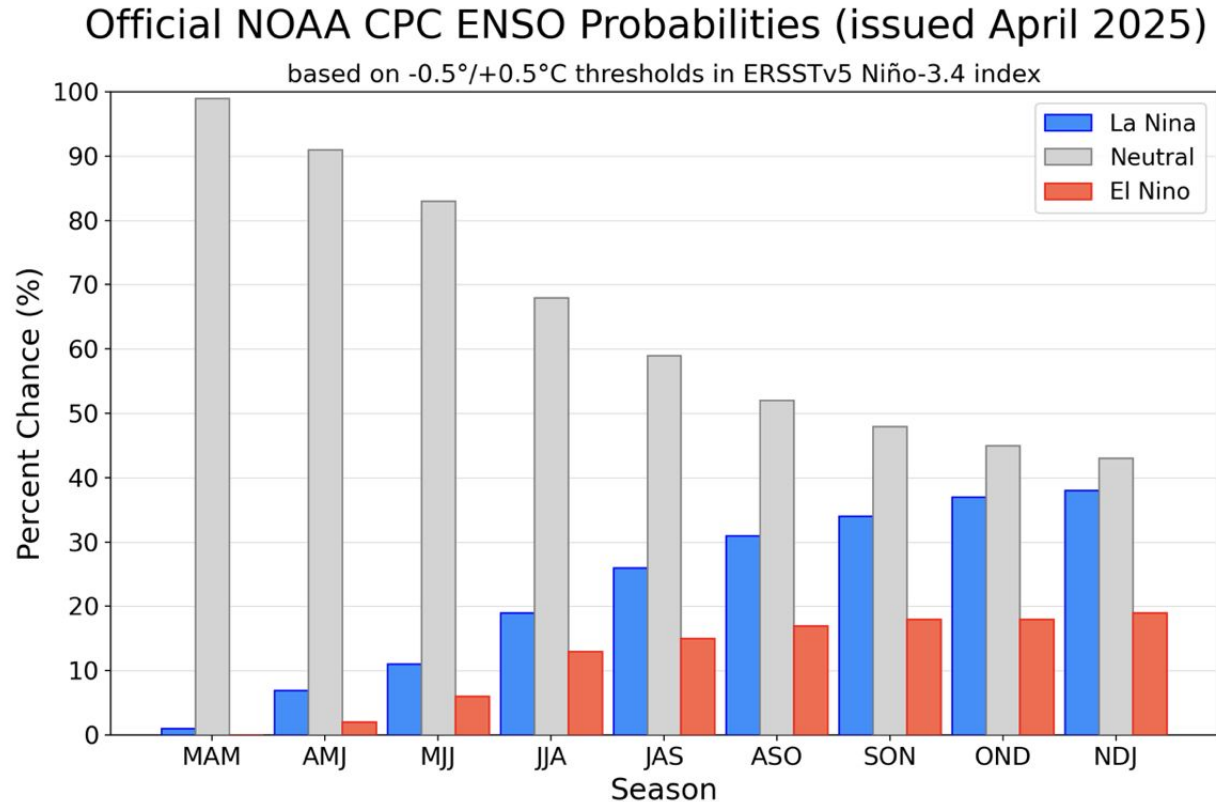


Figure provided by the International Research Institute (IRI) for Climate and Society (updated 19 March 2025).



Atualizado em 20 de Abril

# Previsão do “ENSO”





# Previsão Sazonal de Chuva Multi-Modelo

## Maio-Junho-Julho

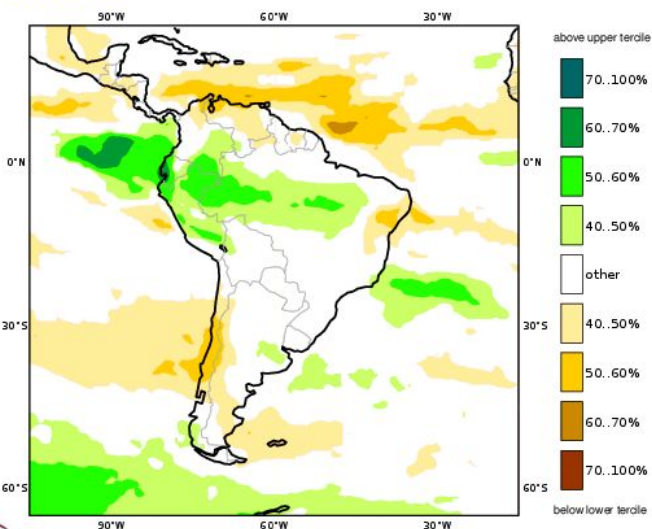
C3S multi-system seasonal forecast

Prob(most likely category of precipitation)

Nominal forecast start: 01/04/25

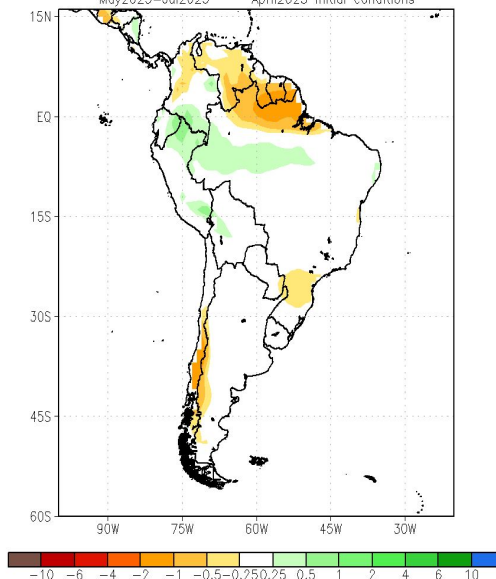
Unweighted mean

MJJ 202



Modelos Europeus

NMME Precipitation Anomalies (mm/day)



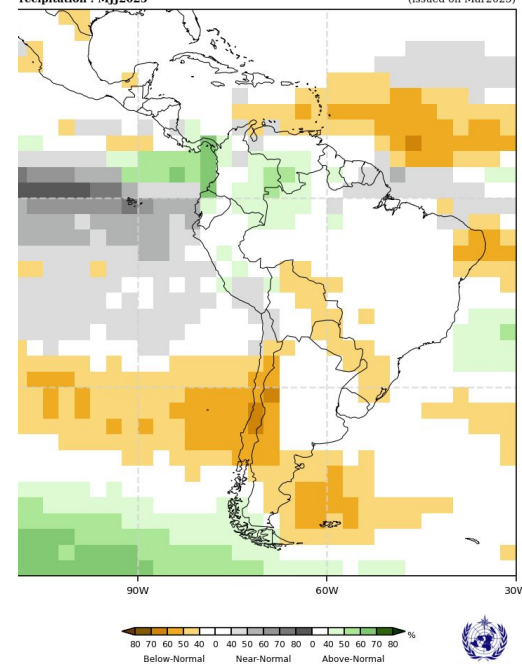
Modelos Norte Americanos

Probabilistic Multi-Model Ensemble Forecast

CMCC, CTEC, ECMWF, Easeter, Melbourne, Montreal, Offenbach, Seoul, Toulouse, Washington

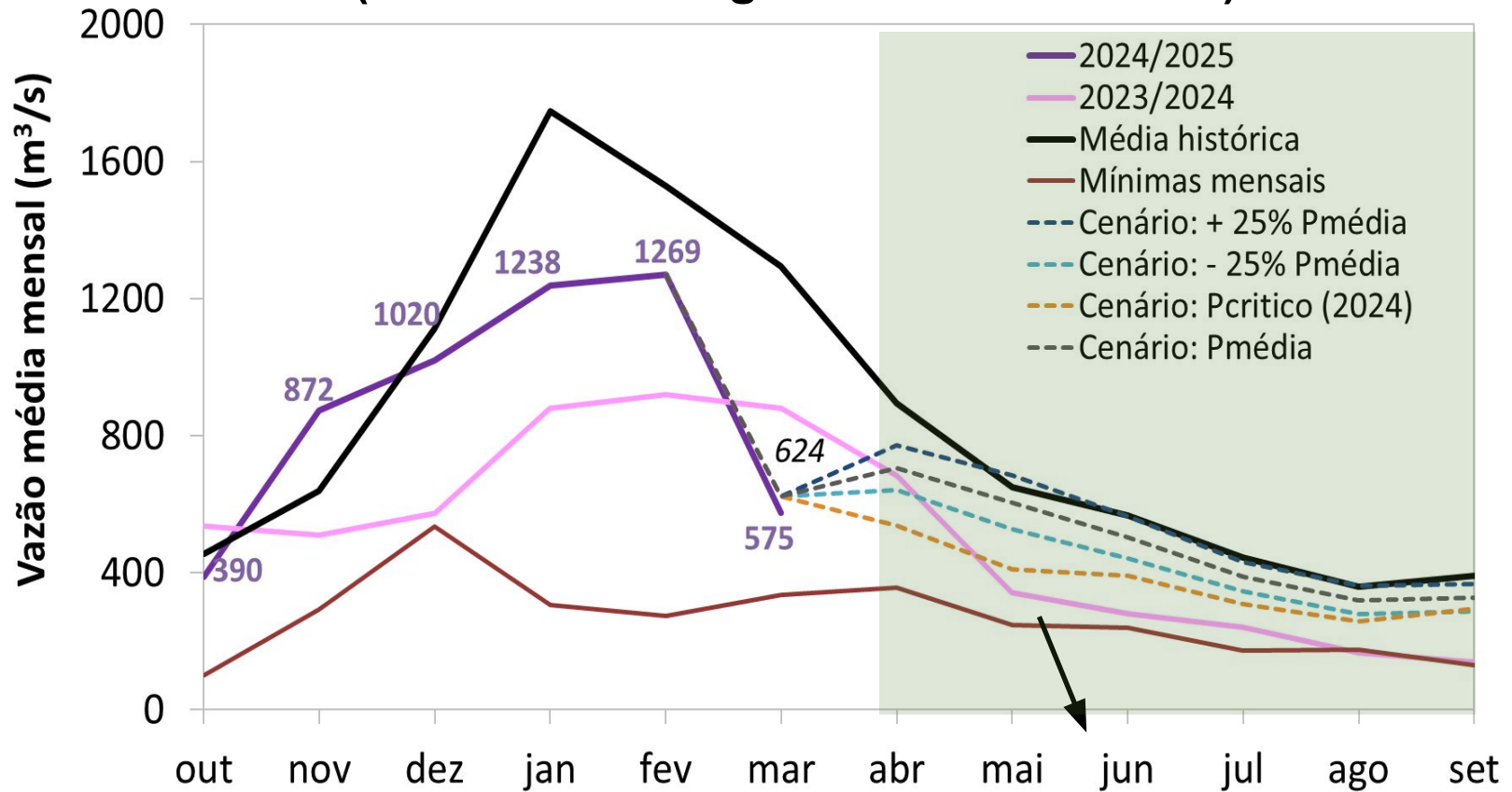
precipitation : MJJ2025

(issued on Mar2025)



Modelos da WMO

# Furnas: Projeção de Vazão (modelo hidrológico PDM-CEMADEN)

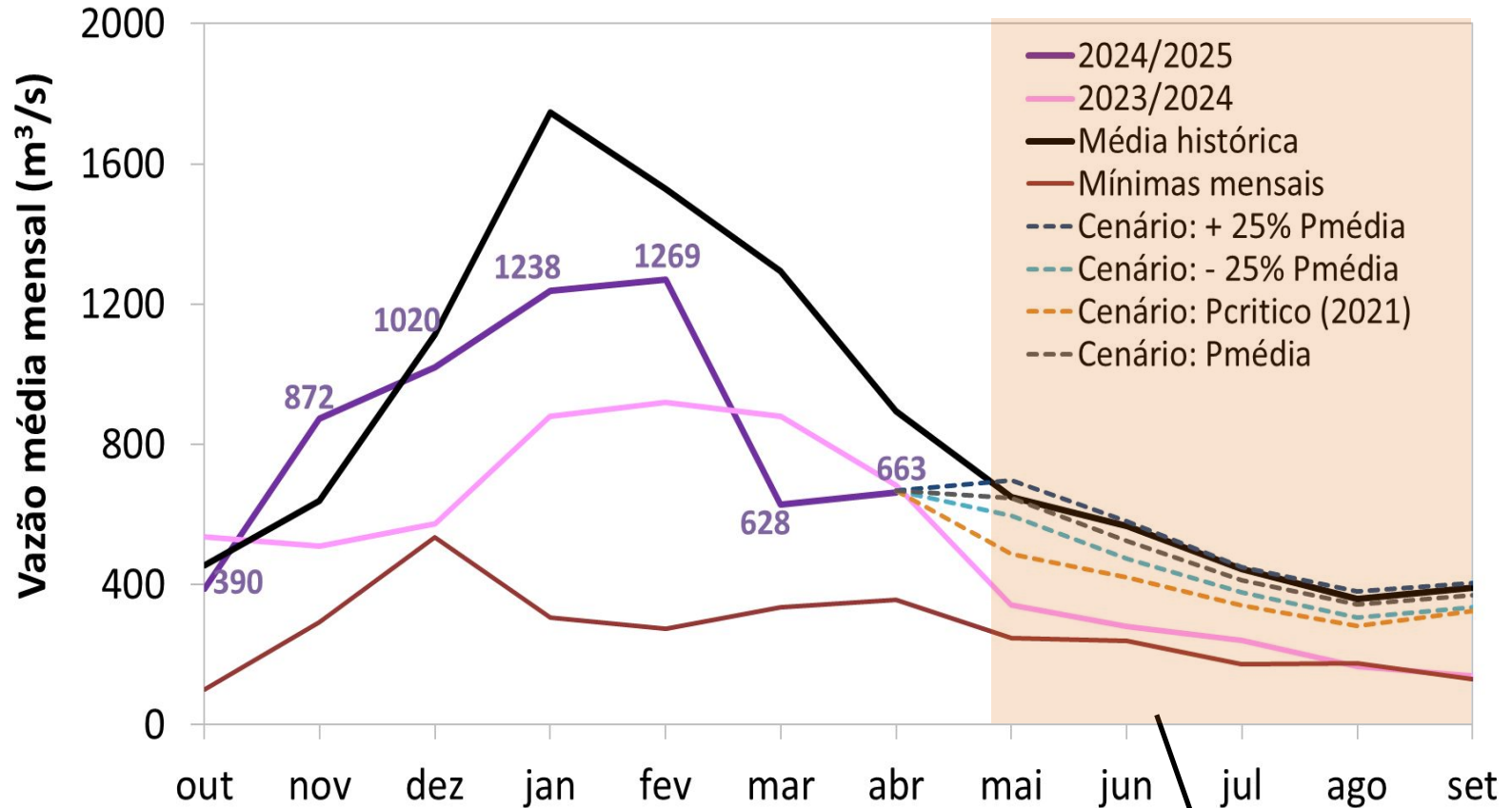


**Abril-Setembro (Meses Secos)**

**MLT: 551 m³/s**

Vazão	% MLT
530 m³/s	96%
475 m³/s	86%
421 m³/s	76%
367 m³/s	67%

## Furnas: Projeção de Vazão (modelo hidrológico PDM-CEMADEN)



**Maio-Setembro (Meses Secos)**

**MLT: 482 m³/s**

Vazão	%
<b>503 m³/s</b>	<b>MLT 104%</b>
460 m³/s	95%
<b>418 m³/s</b>	<b>87%</b>
<b>371 m³/s</b>	<b>77%</b>