

Monitoramento e Previsões para a Bacia do rio Araguaia-Tocantins

DEZEMBRO 2024

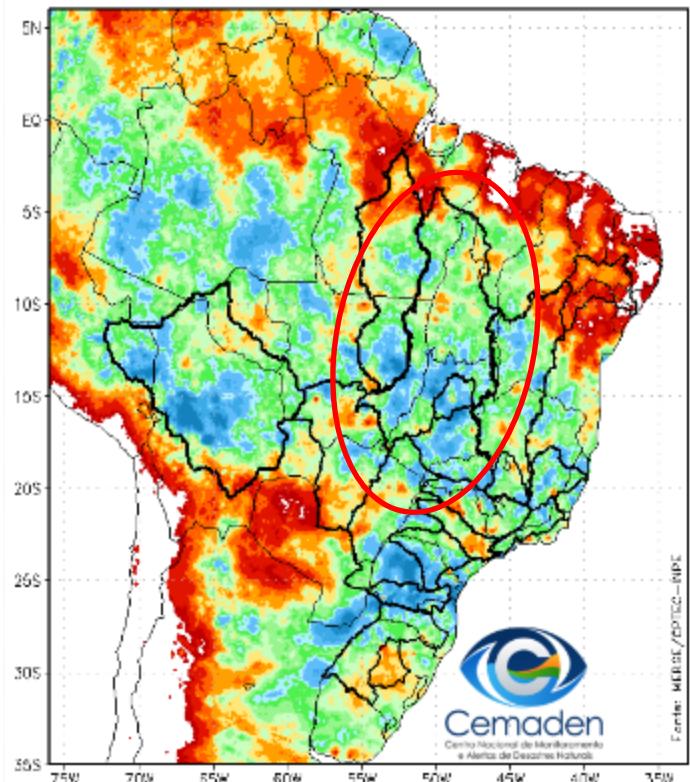


MINISTÉRIO DA
CIÊNCIA, TECNOLOGIA
E INOVAÇÃO



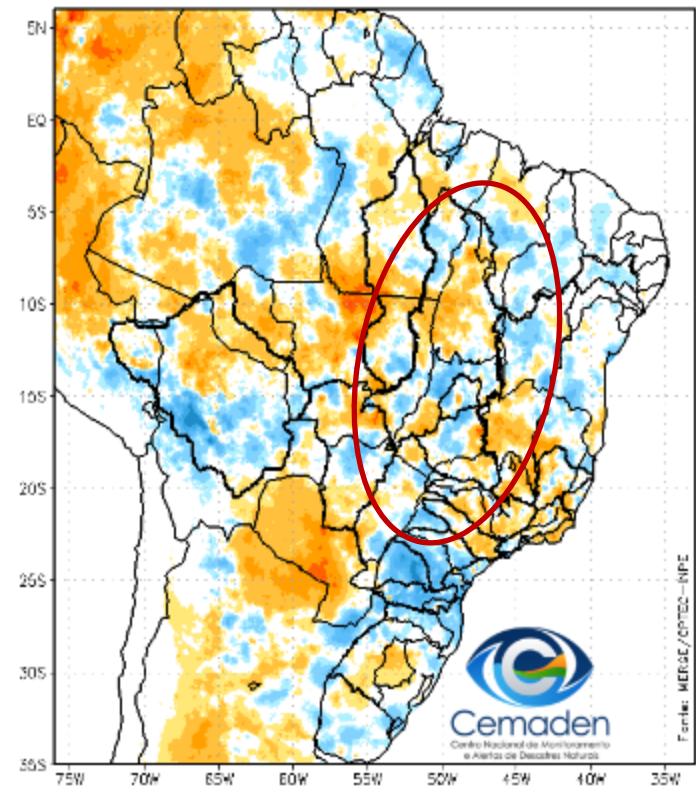
Precipitação acumulada nos últimos 30 dias

Precipitação Acumulada (mm) A.S.
Período: 10/11/2024 a 10/12/2024 (30 dias)



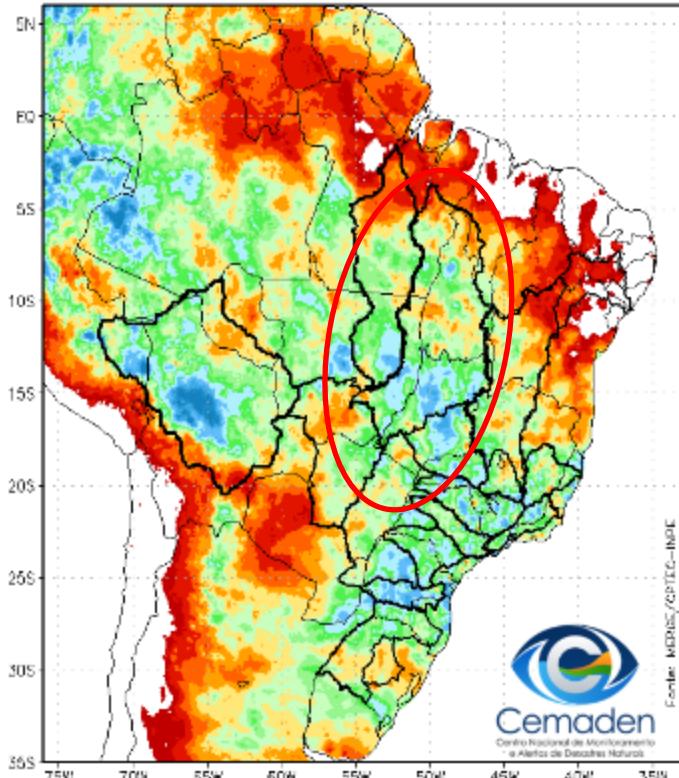
Fonte dos dados: Merge/INPE

Anomalia de Precipitação (mm) A.S.
Período: 10/11/2024 a 10/12/2024 (30 dias)



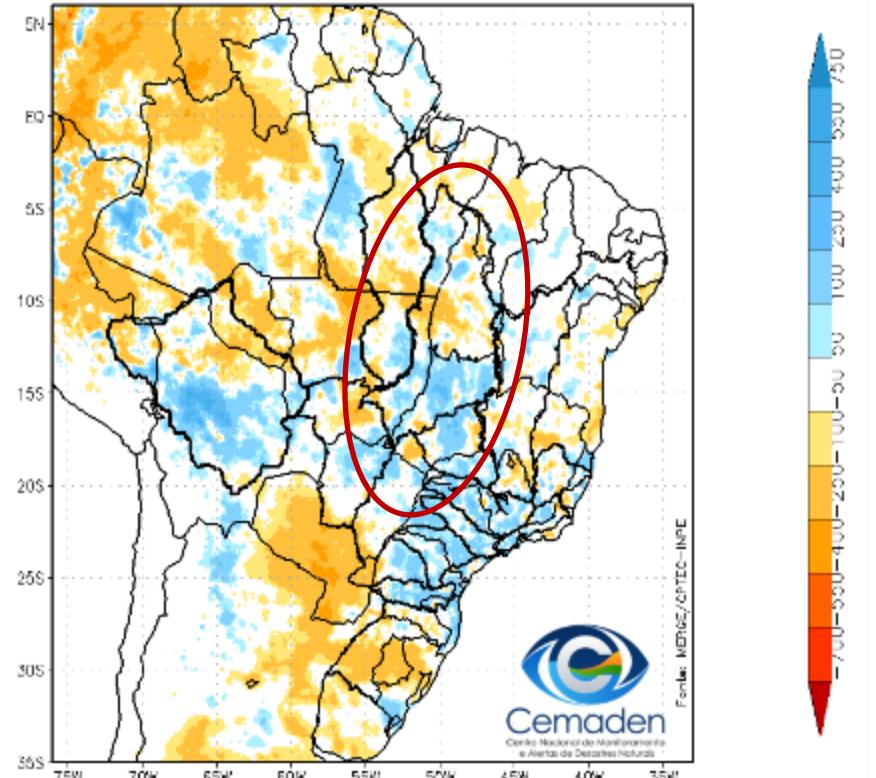
Precipitação acumulada no Ano Hidrológico

Precipitação Acumulada (mm) Ano Hidrológico
Período: 01/10/2024 a 11/12/2024

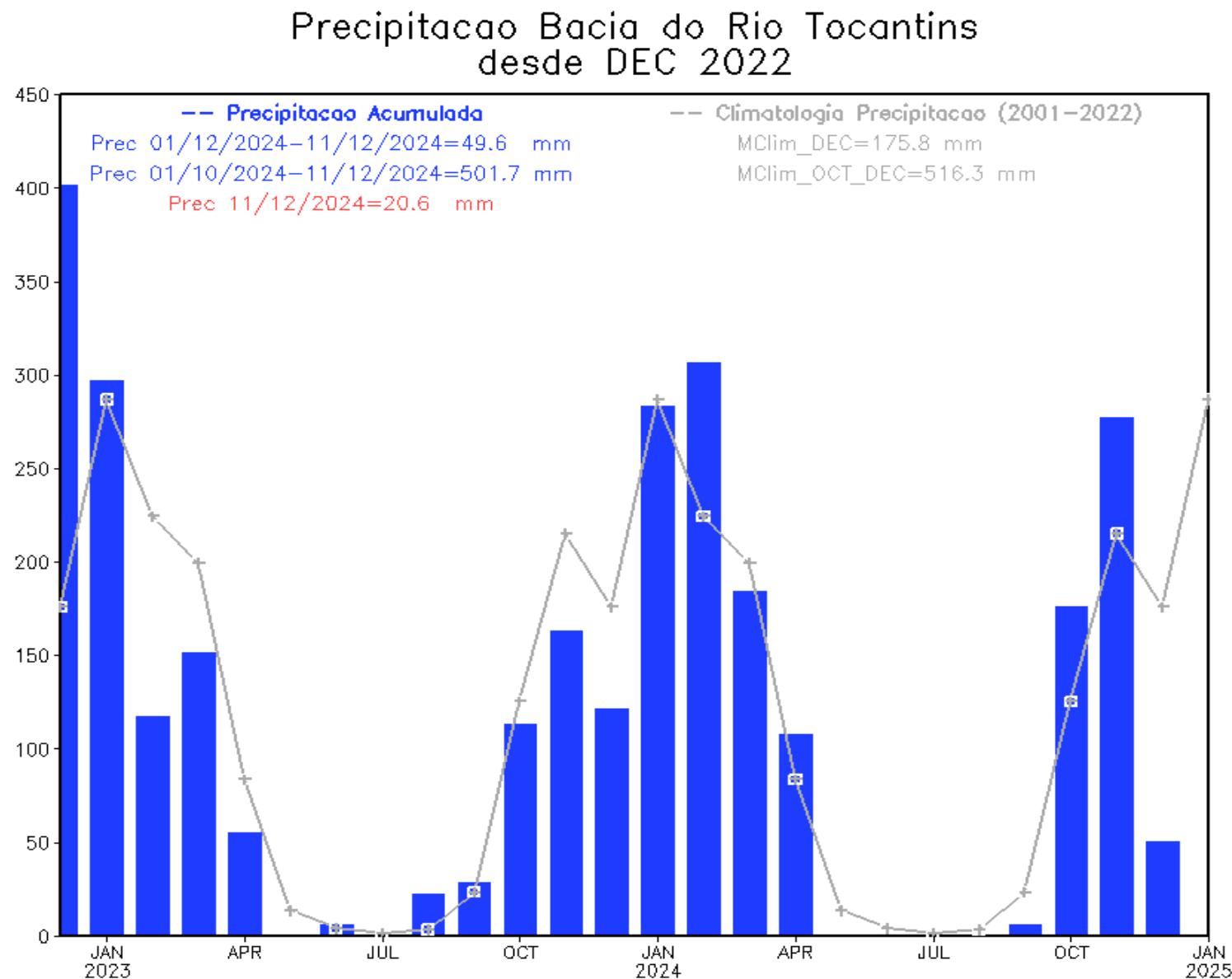


Fonte dos dados: Merge/INPE

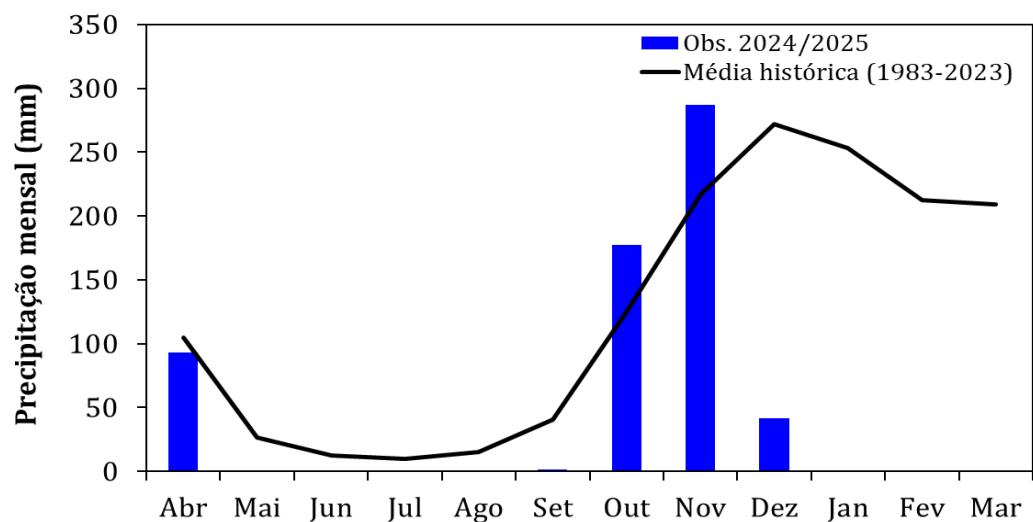
Anomalia de Precipitação (mm) Ano Hidrológico
Período: 01/10/2024 a 11/12/2024



Evolução da Precipitação



Monitoramento UHE Serra da Mesa



Precipitação

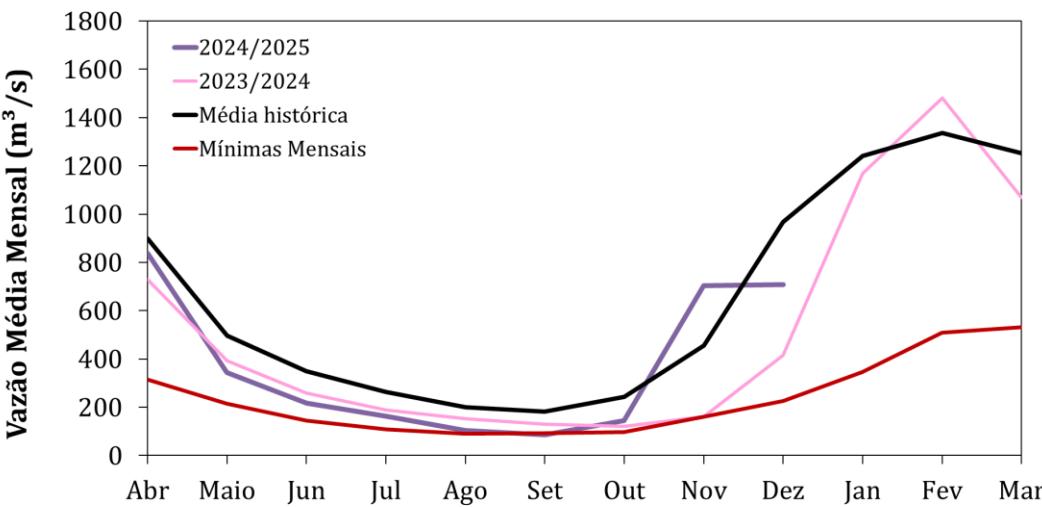
Estação Chuvosa - Out a Abr – 1392 mm
2023/2024: 1245 mm (**89% da MLT**)
2024/2025*: 505 mm (**93% da MLT PARCIAL**)

Estação Seca - Maio a Set – 105 mm
2023: 57 mm (**54% da MLT**)
2024: 2 mm (**2% da MLT**)

Nov/2024: 287 mm (**132% da MLT**)
Dez/2024*: 41 mm (**46% da MLT PARCIAL**)

*Até 10/12/2024

Vazão



Estação Chuvosa - Out a Abr – 913 m³/s
2023/2024: 751 m³/s (**82% da MLT**)
2024/2025**: 519 m³/s (**57% da MLT**)

Estação Seca - Maio a Set – 298 m³/s
2023: 224 m³/s (**75% da MLT**)
2024: 183 m³/s (**61% da MLT**)

Nov/2024: 704 m³/s (**154% da MLT**)
Dez/24:** 708 m³/s (**73% da MLT**)
10/Dez/24: 544 m³/s (**56% da MLT**)

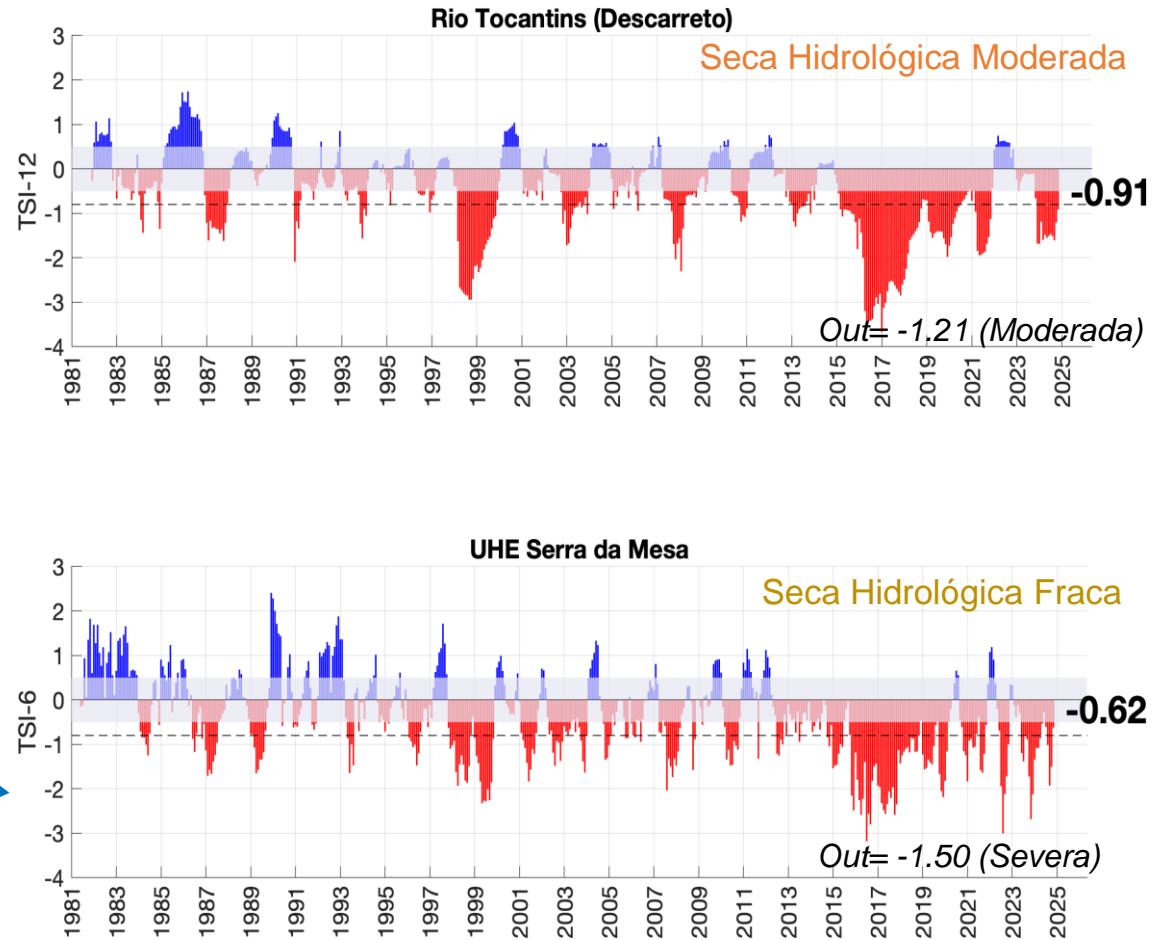
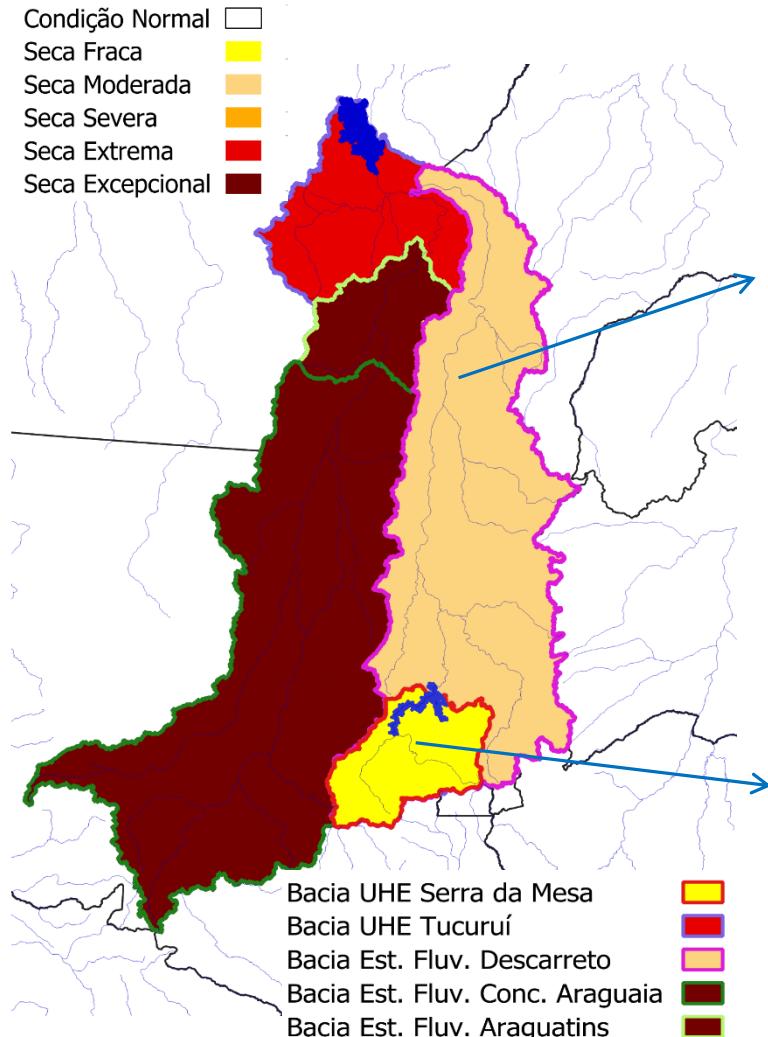
**Até 10/12/2024

Dados de precipitação: INMET, ANA, CEMADEN

Dados de vazão: ONS e ANA

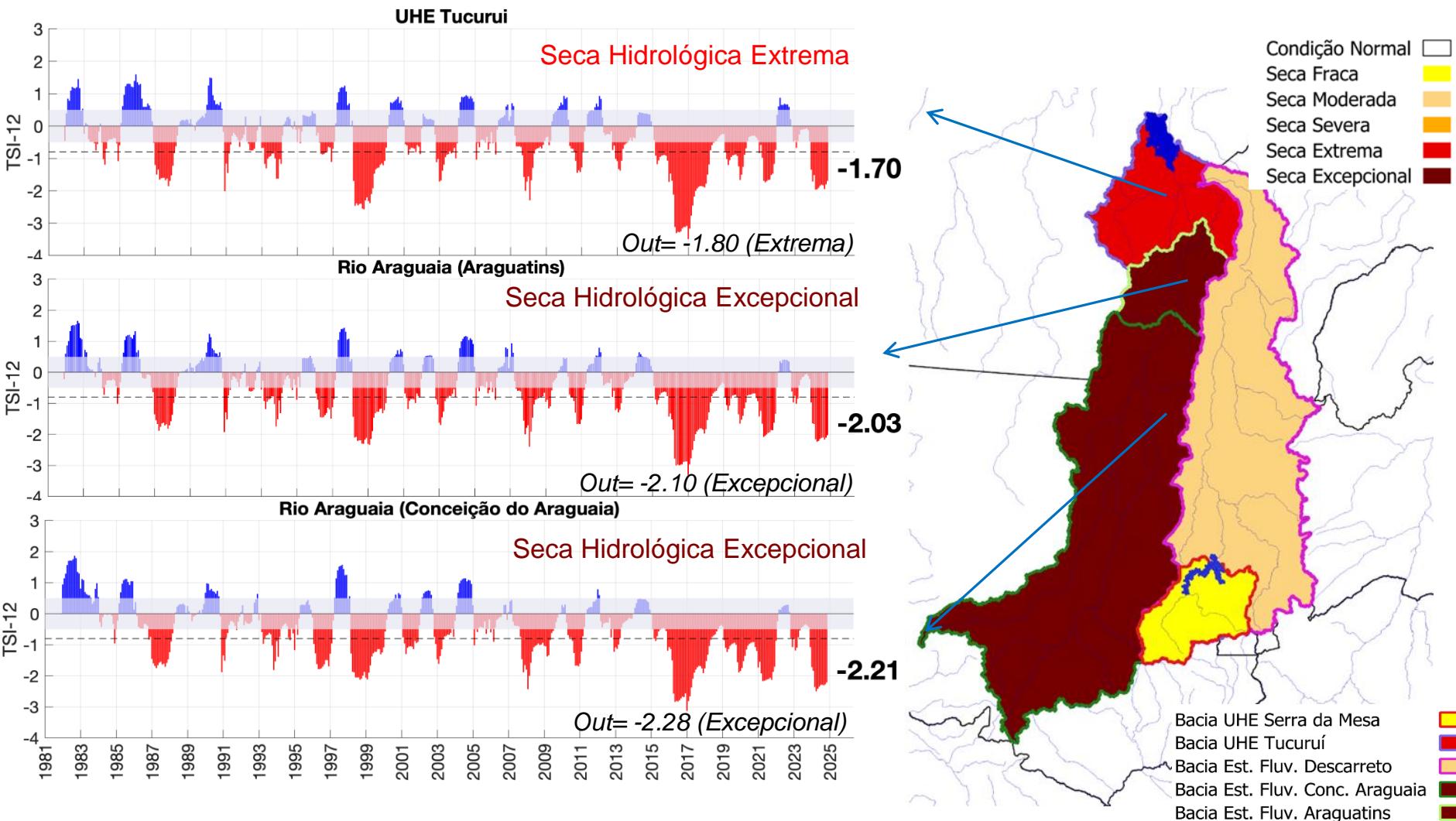
Índice Bivariado de Seca (Precipitação-Cota/Vazão) - TSI

Escala de longo prazo: TSI-6/12 meses



Índice Bivariado de Seca (Precipitação-Cota/Vazão) - TSI

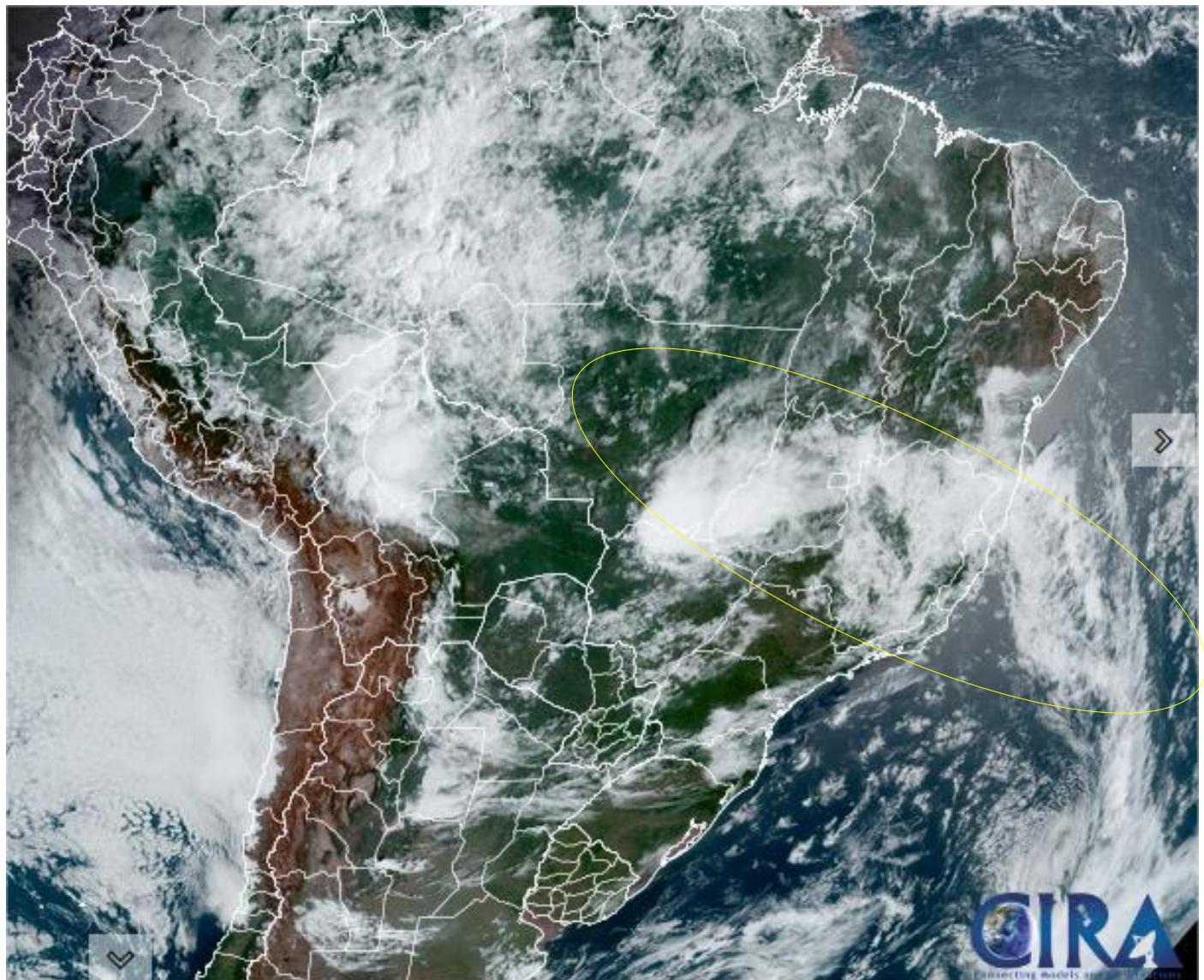
Escala de longo prazo: TSI-6/12 meses



Fonte: CEMADEN

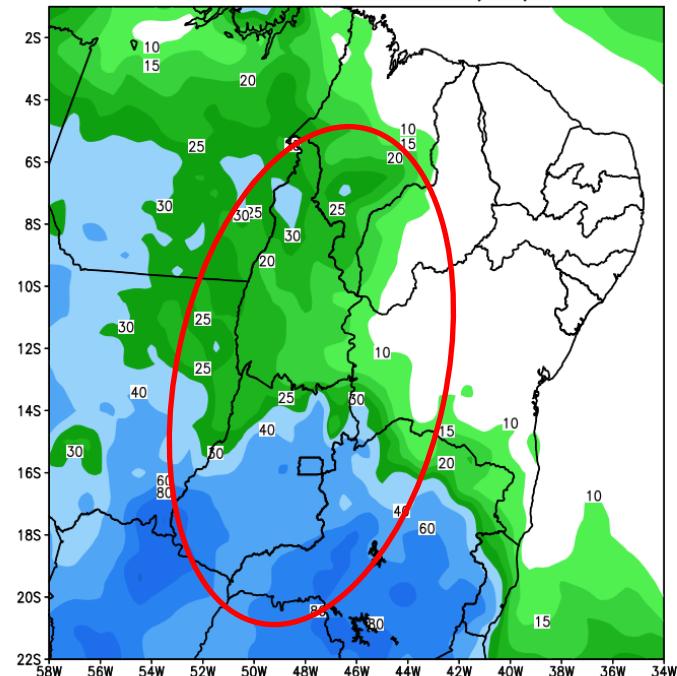
Dados: Precipitação (Cemaden/INMET/CHIRPS) e
Vazão (ONS/ANA) - Jan/1981-Nov/2024.

Situação meteorológica atual

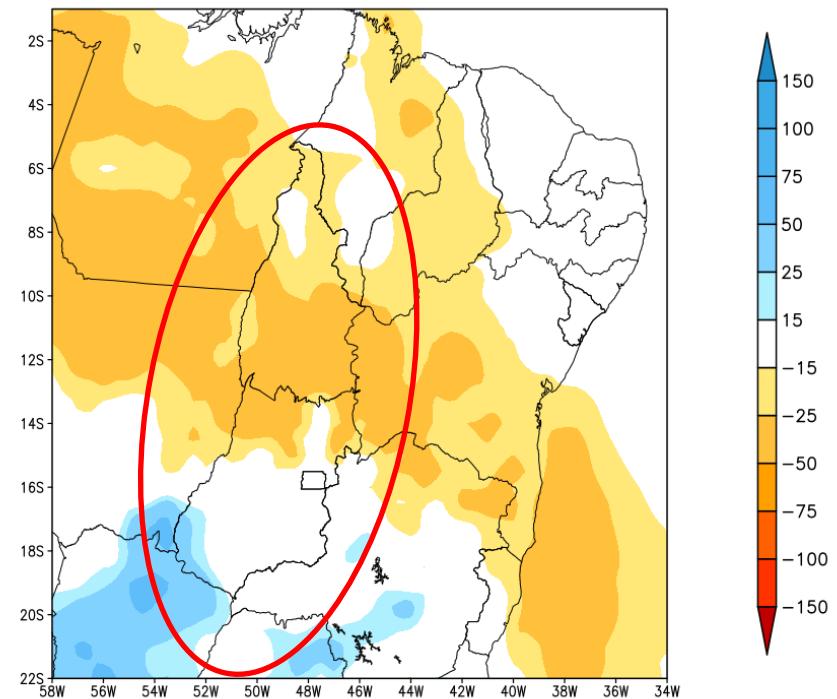


Previsão de chuva próximos 7 dias

GEFS / BRASIL_NE
Precipitacao acumulada 1aSem (mm)
Previsao das 00Z dia 12/12/2024



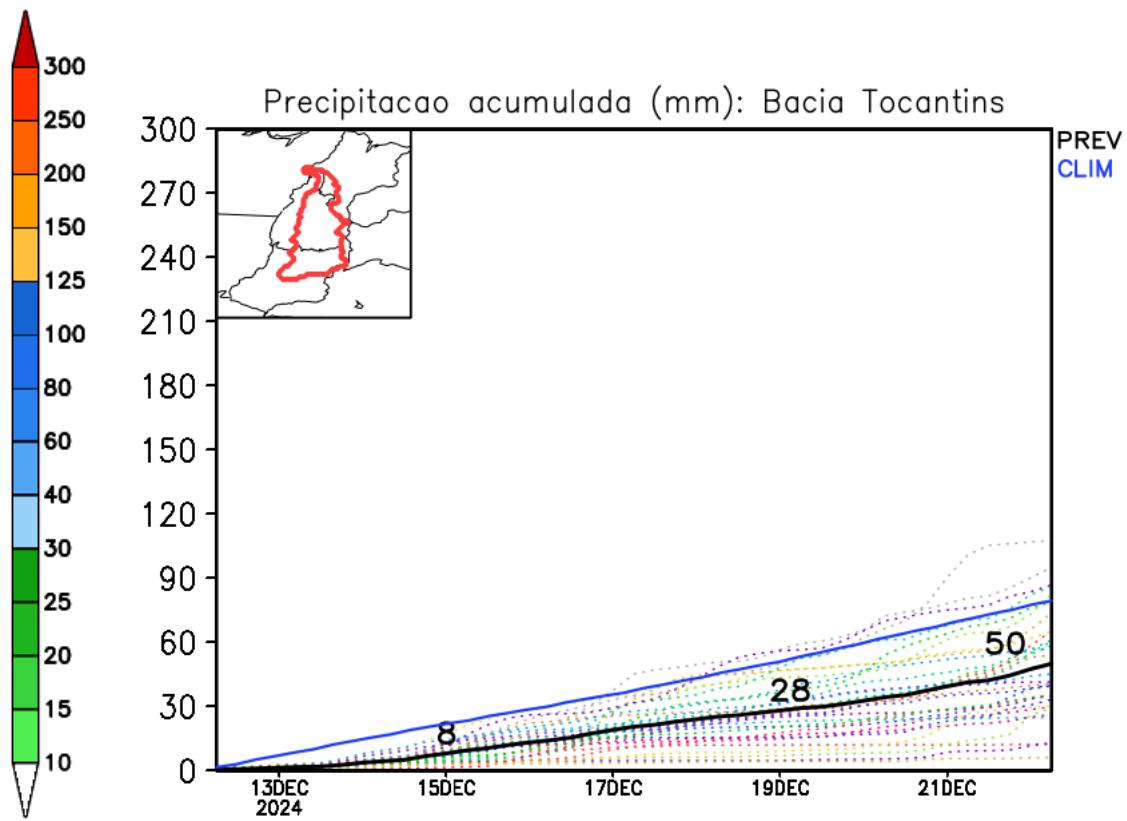
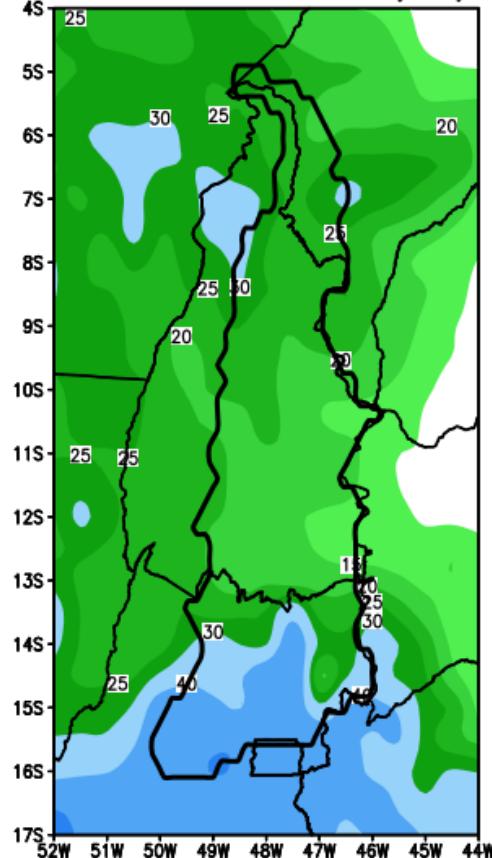
Anomalia de Precipitacao BR_NE (mm)
Periodo: 2024121200 a 2024121900



Fonte: GEFS/NOAA

Previsão Bacia Rio Tocantins

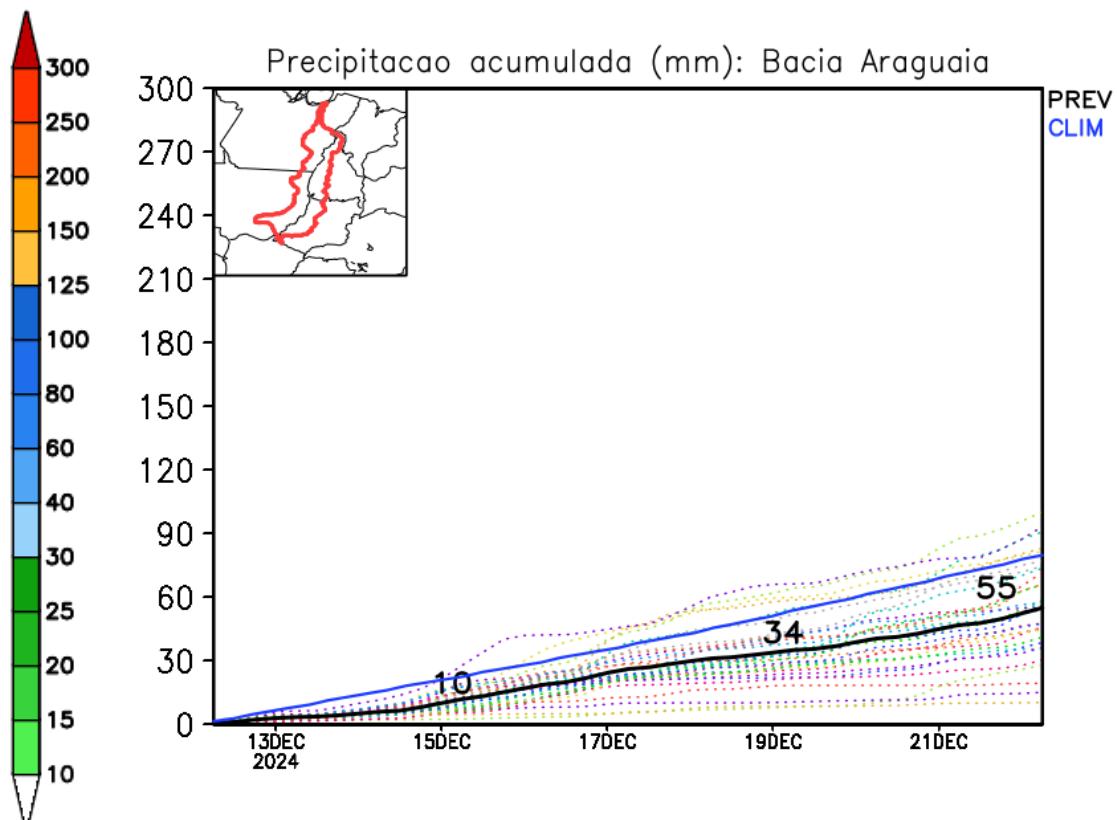
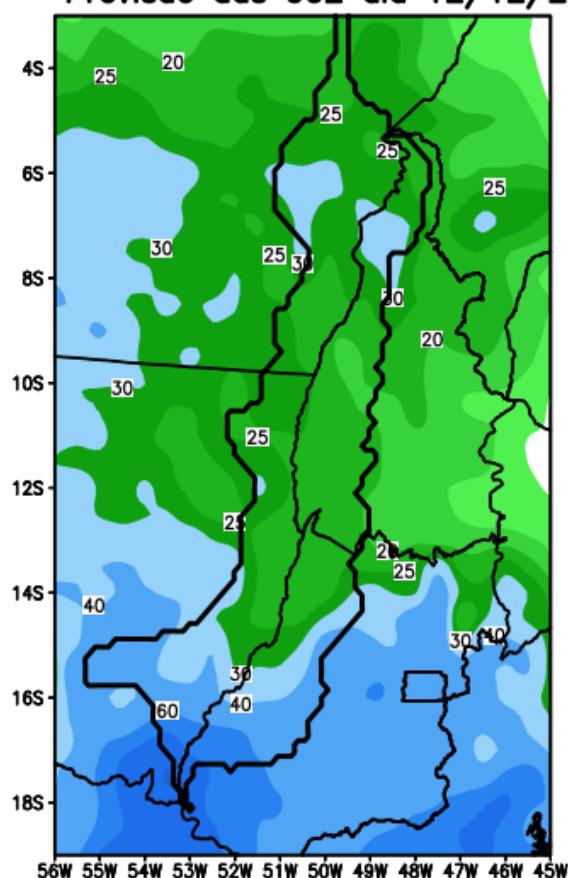
GEFS / Bacia Tocantins
Precipitacao acumulada em 7 dias (mm)
Previsao das 00Z dia 12/12/2024



Fonte: GEFS/NOAA

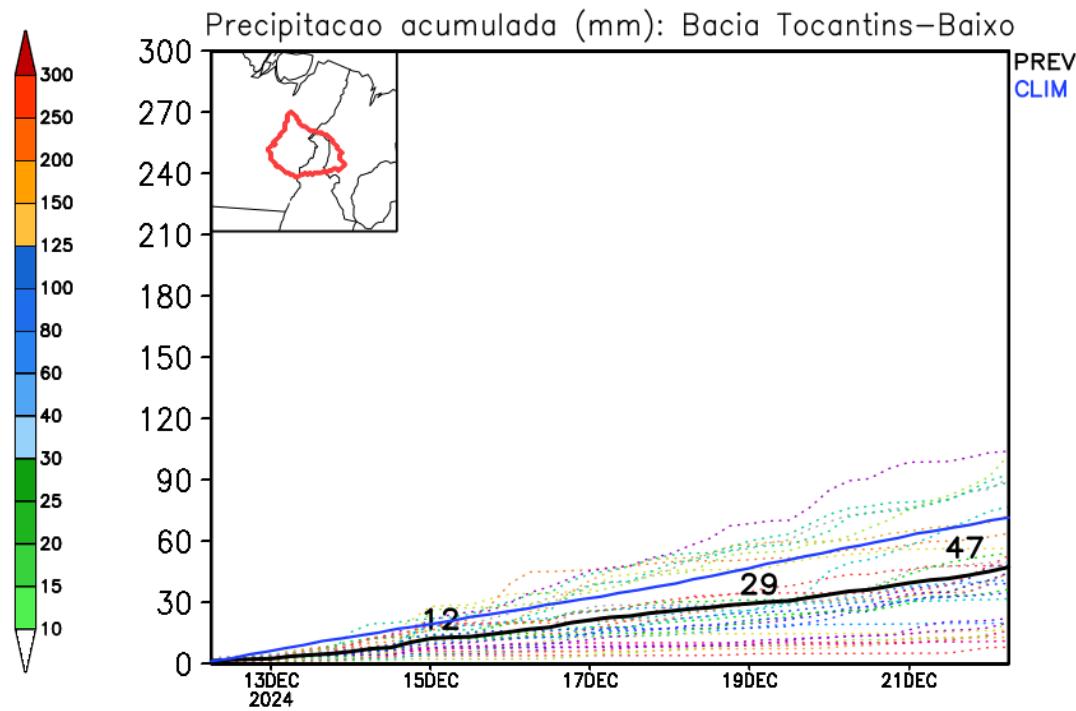
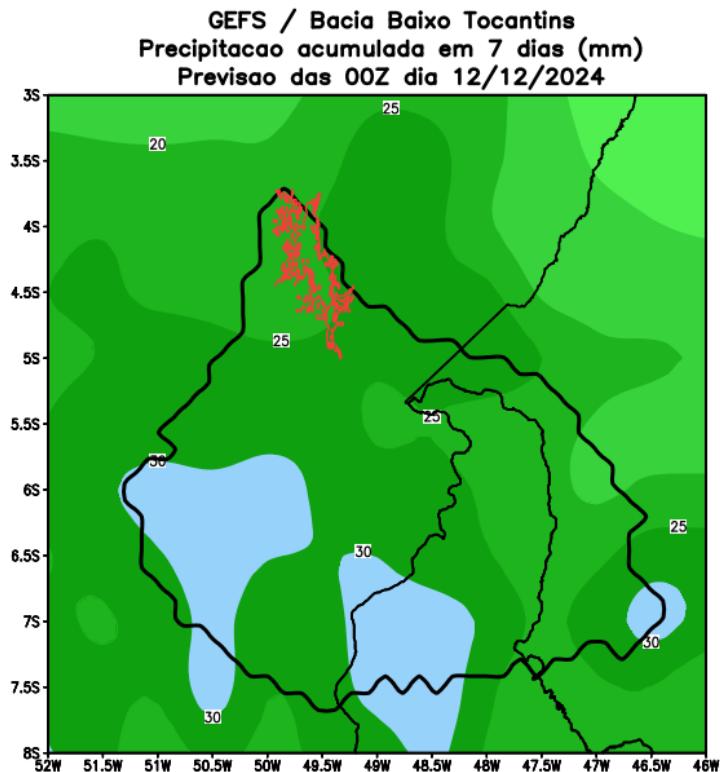
Previsão Bacia Rio Araguaia

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



Fonte: GEFS/NOAA

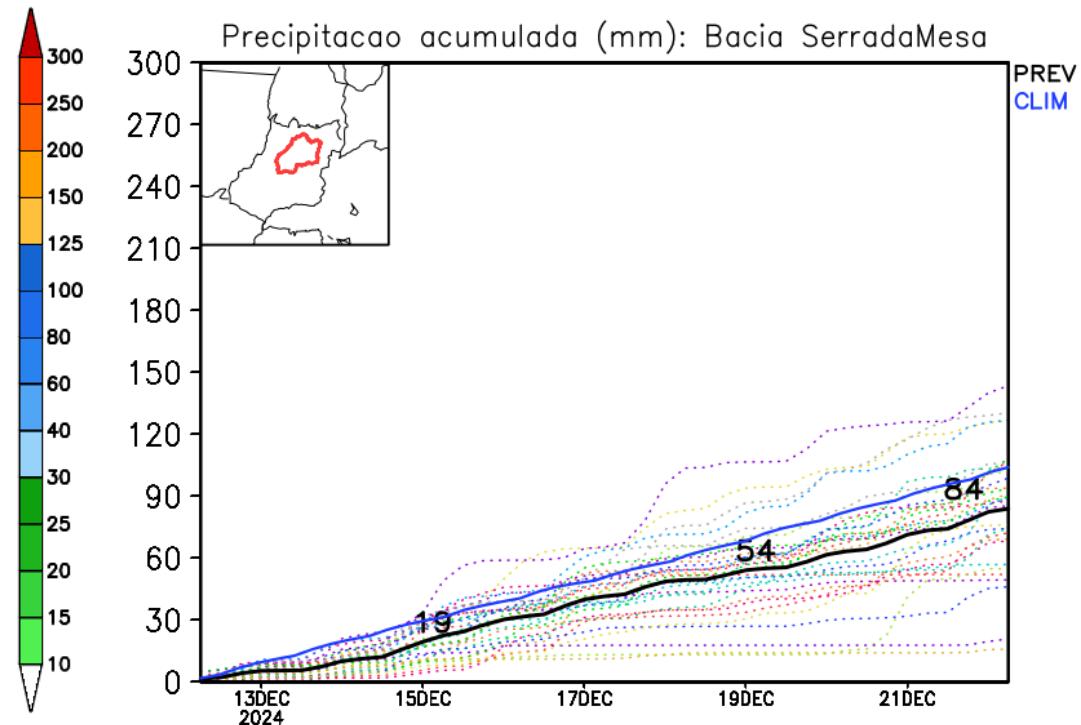
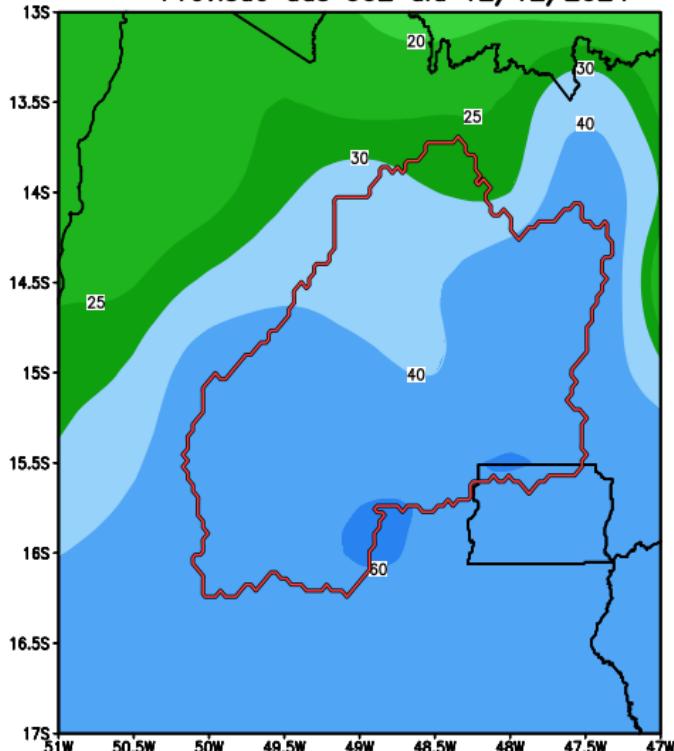
Previsão Bacia Tocantins (Baixo)



Fonte: GEFS/NOAA

Previsão Bacia Serra da Mesa

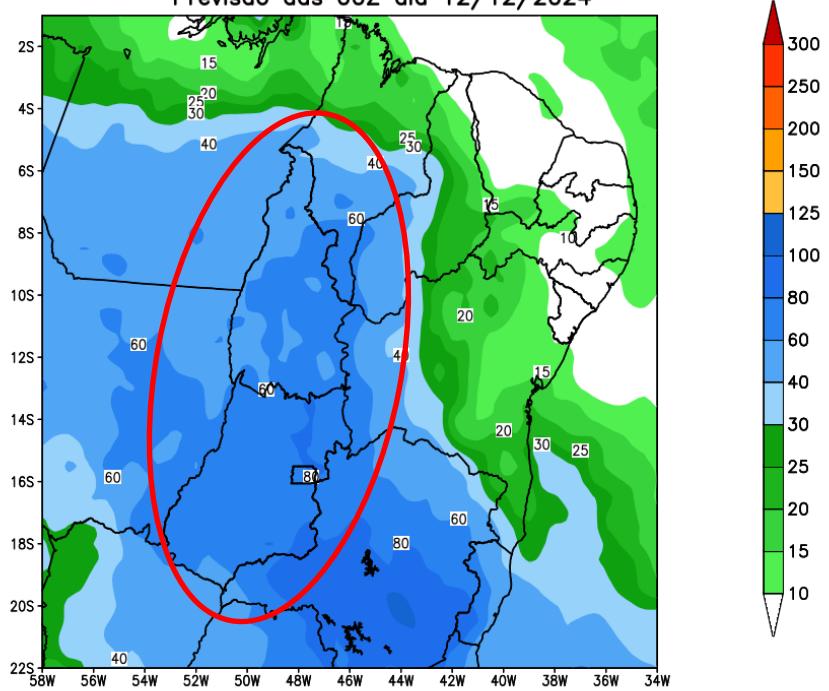
GEFS / Bacia Serra da Mesa
Precipitacao acumulada em 7 dias (mm)
Previsao das 00Z dia 12/12/2024



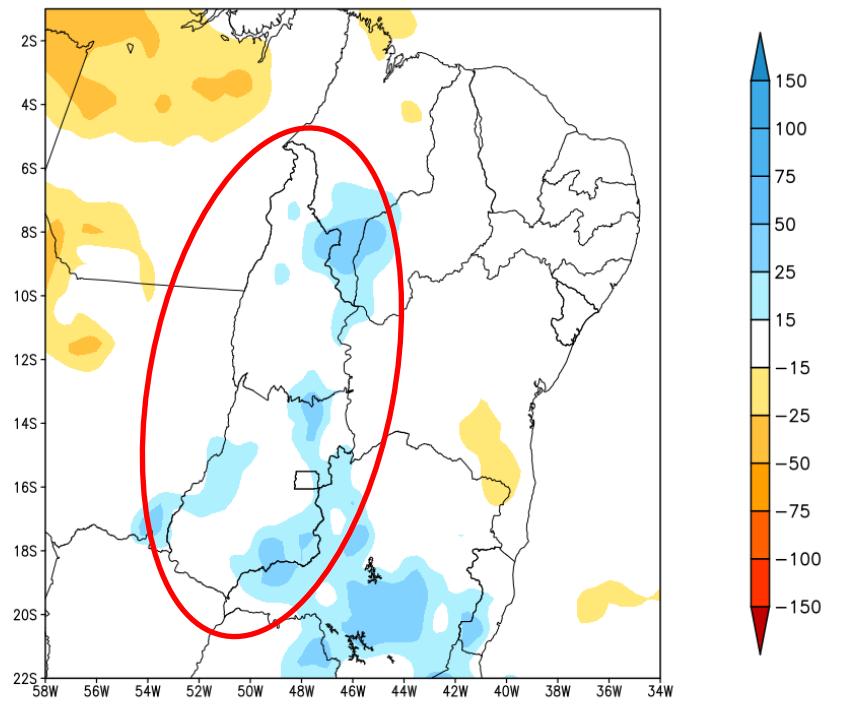
Fonte: GEFS/NOAA

Tendência para a 2a Semana

GEFS / BRASIL_NE
Precipitacao acumulada 2aSem (mm)
Previsao das 00Z dia 12/12/2024



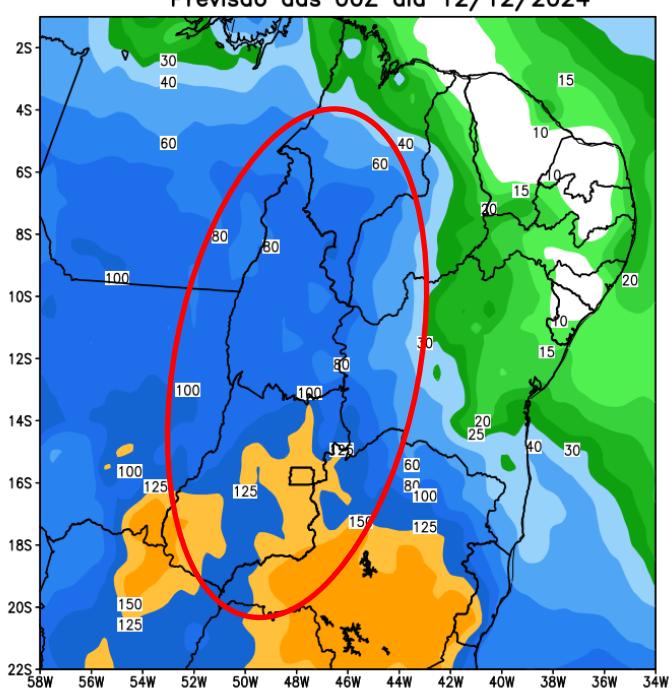
Anomalia de Precipitacao BR_NE (mm)
Periodo: 2024122000 a 2024122600



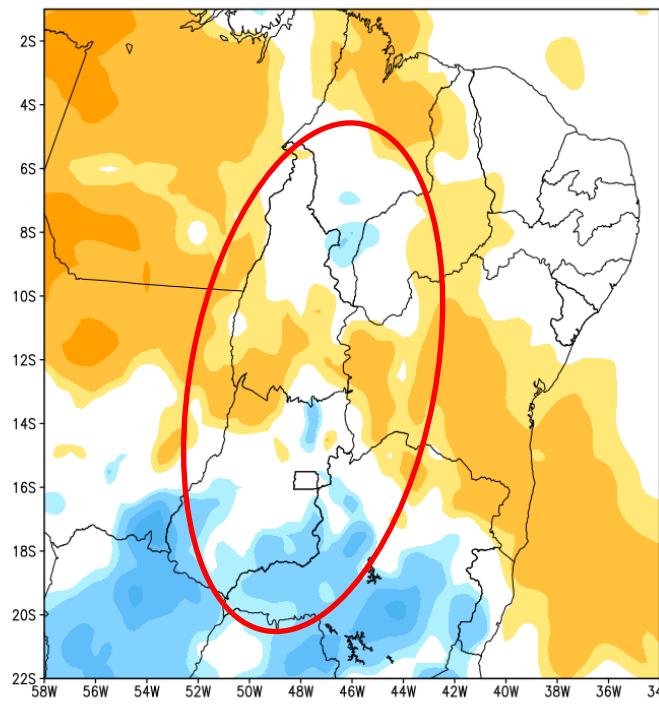
Fonte: GEFS/NOAA

Tendência para as próximas duas semanas

GEFS / BRASIL_NE
Precipitacao acumulada 14dias (mm)
Previsao das 00Z dia 12/12/2024



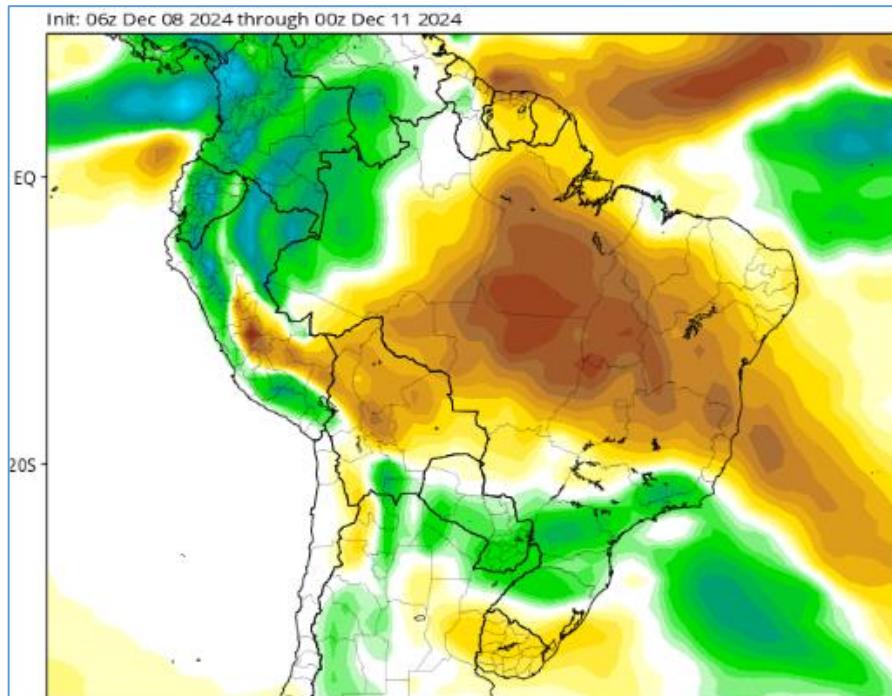
Anomalia de Precipitacao BR_NE (mm)
Periodo: 2024121200 a 2024122600



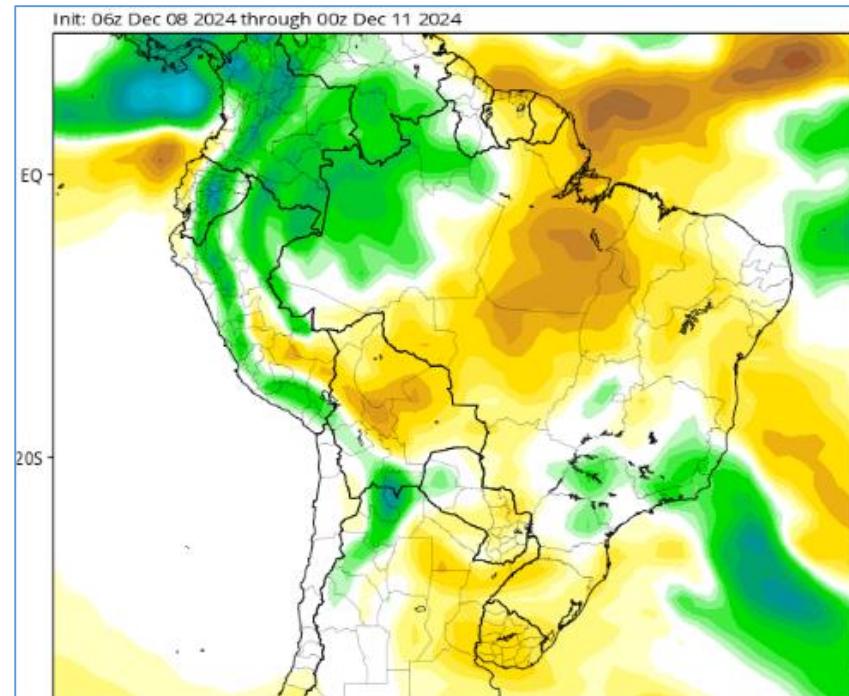
Fonte: GEFS/NOAA

Tendência 3a e 4a semanas

25 Dez – 01 Jan

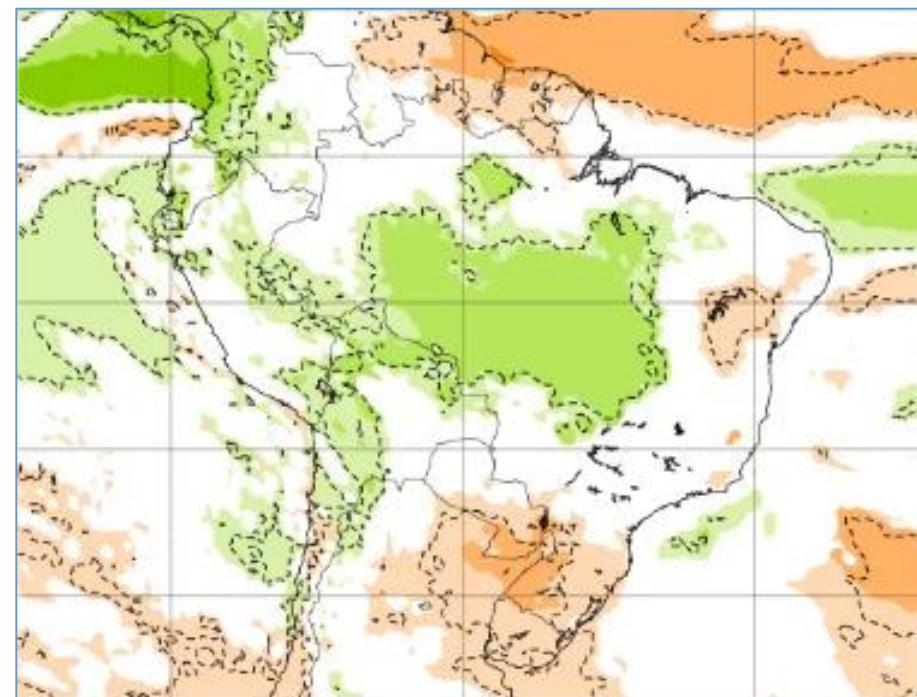


01- 08 Jan

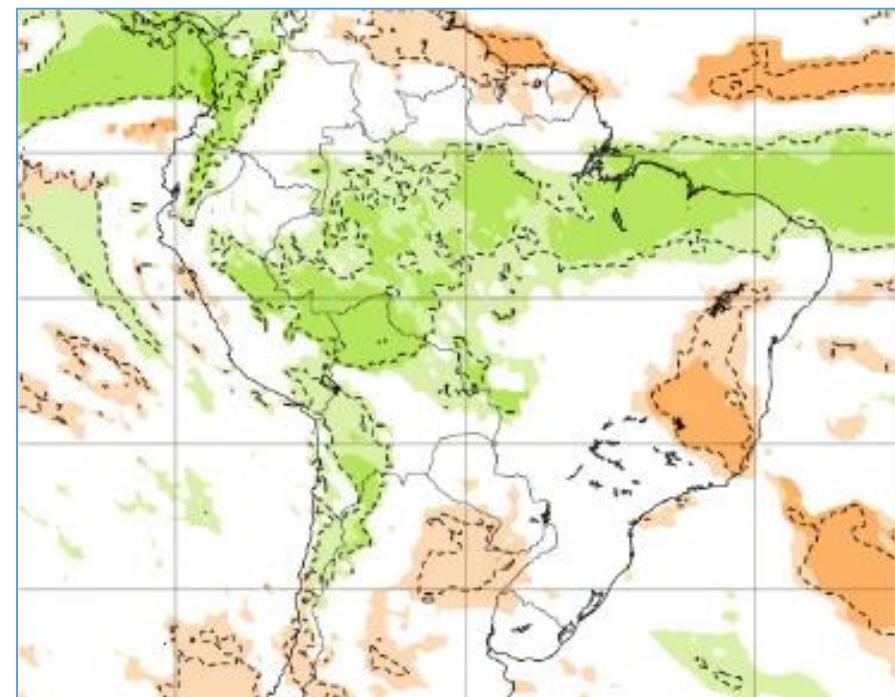


Tendência para 3^a e 4^a semanas

23-30 Dez

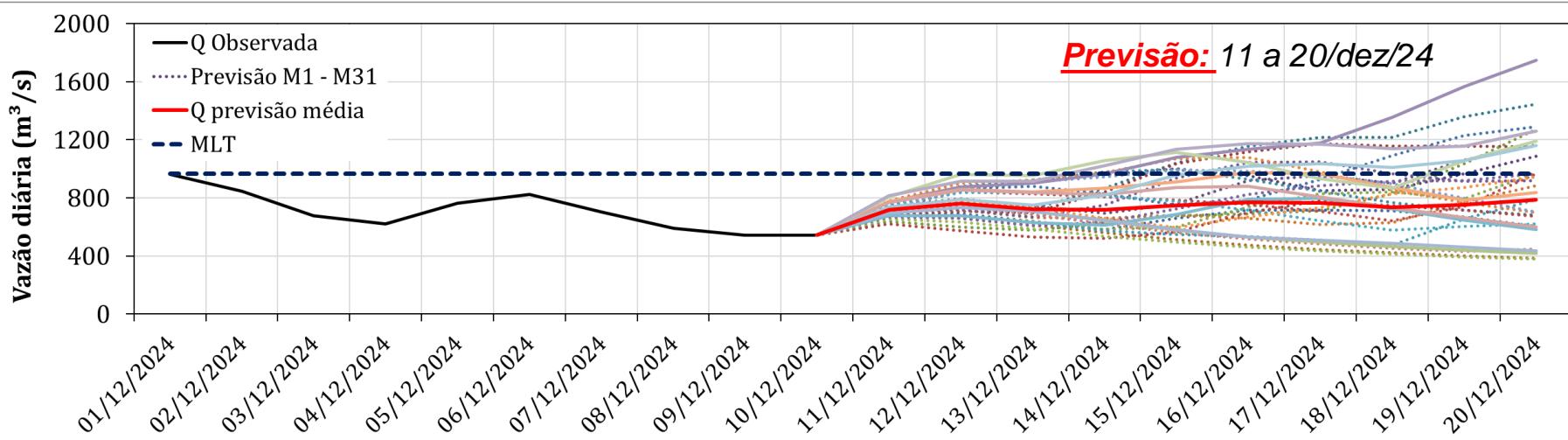
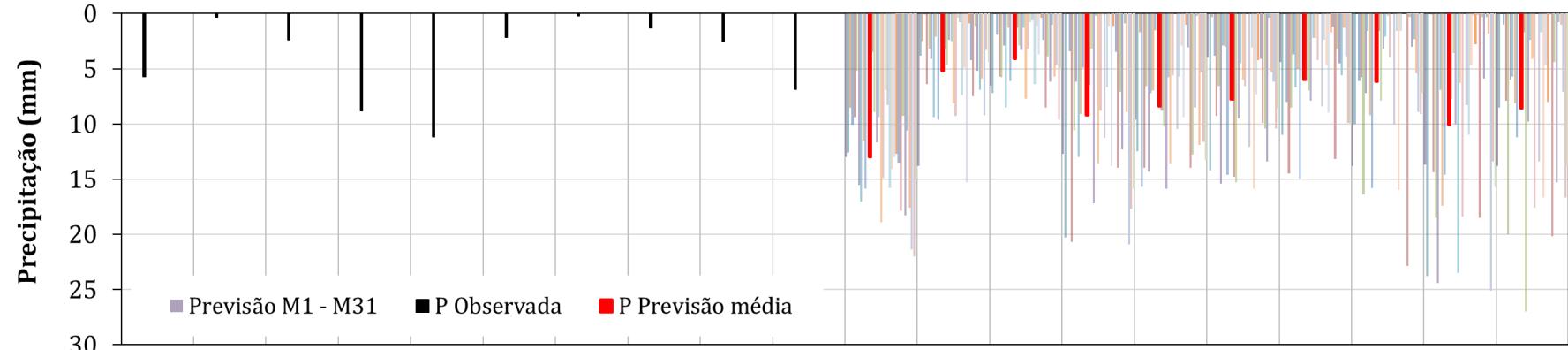


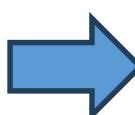
30 Dez- 06 Jan



Serra da Mesa: Previsão de Vazão (modelo hidrológico PDM-CEMADEN)

Vazão Natural e Precipitação Diárias para Serra da Mesa
01 a 20/Dezembro/2024



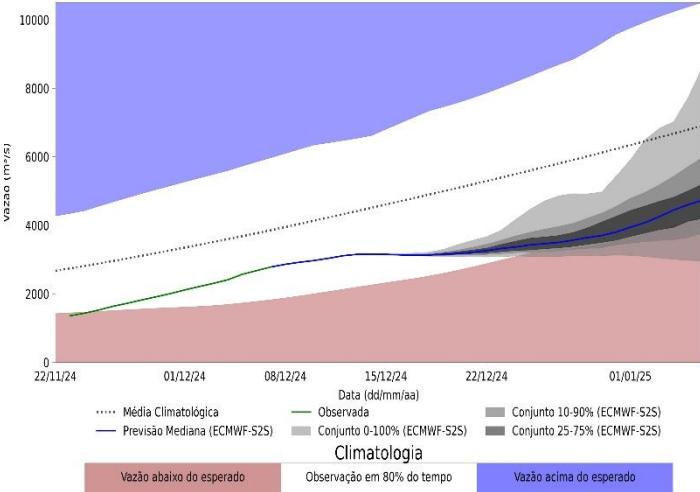
Previsão média para
os próximos 10 dias: 748 m^3/s  77% da MLT de Dezembro

Previsão de vazão natural na Bacia Rio Tocantins-Araguaia

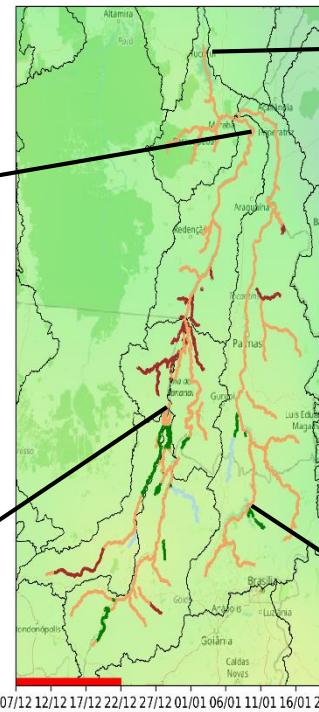
30 dias (Modelo hidrológico Distribuído - MHD)

Previsão: 07/12/24 a 06/01/2025

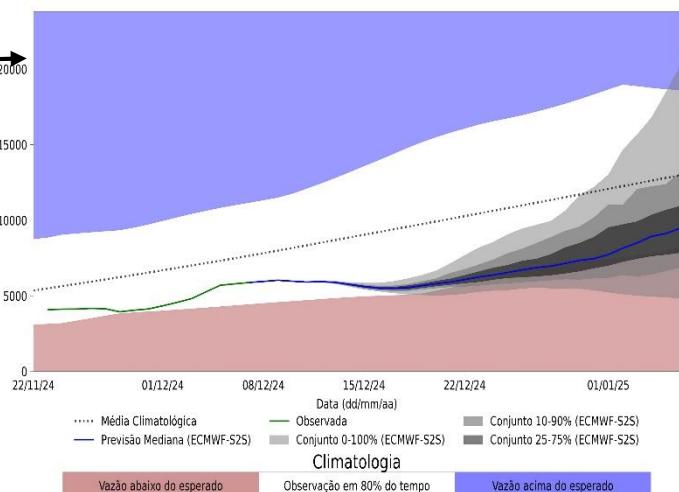
Araguatins - TO



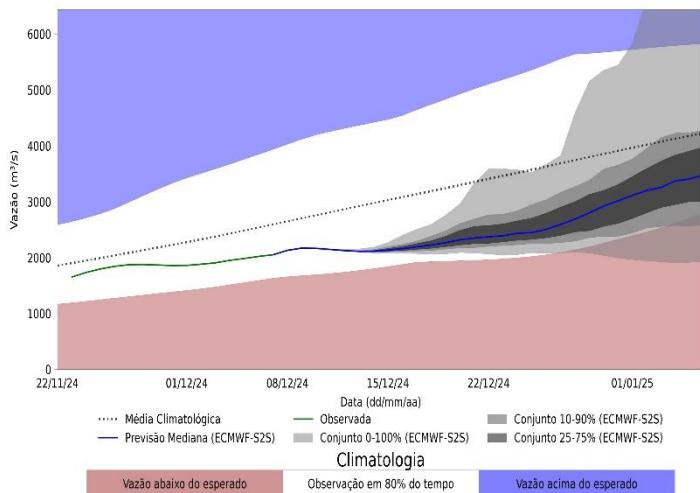
22/12/2024



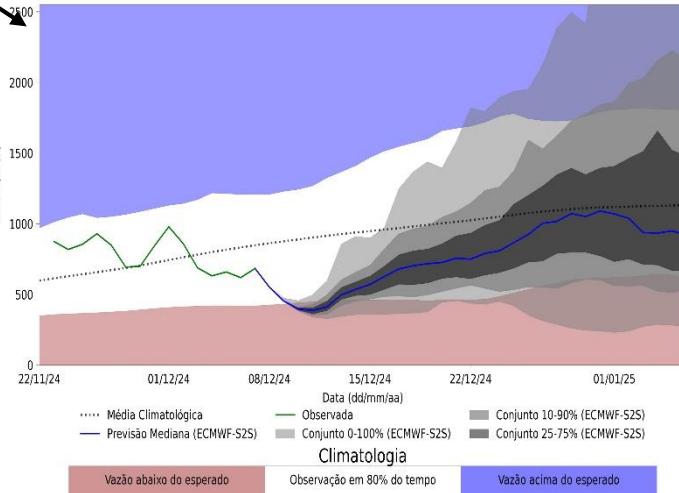
UHE Tucurui



São Félix do Araguaia - MT



UHE Serra da Mesa



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

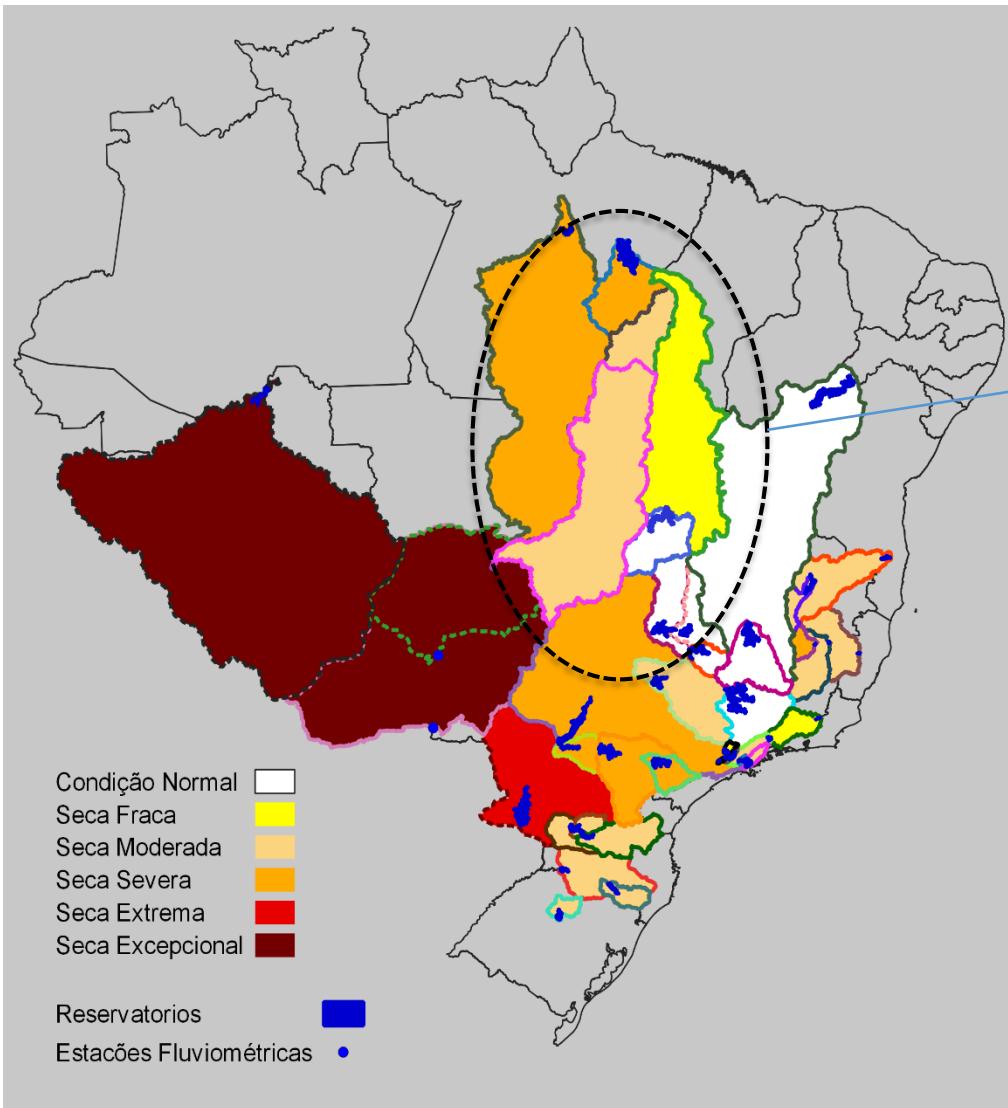
MLT: 2003-2023

Previsão Meteorológica: ECMWF-

- Abaixo Percentil
- Abaixo da média
- Próximo da média
- Acima da média
- Acima Percentil 90%

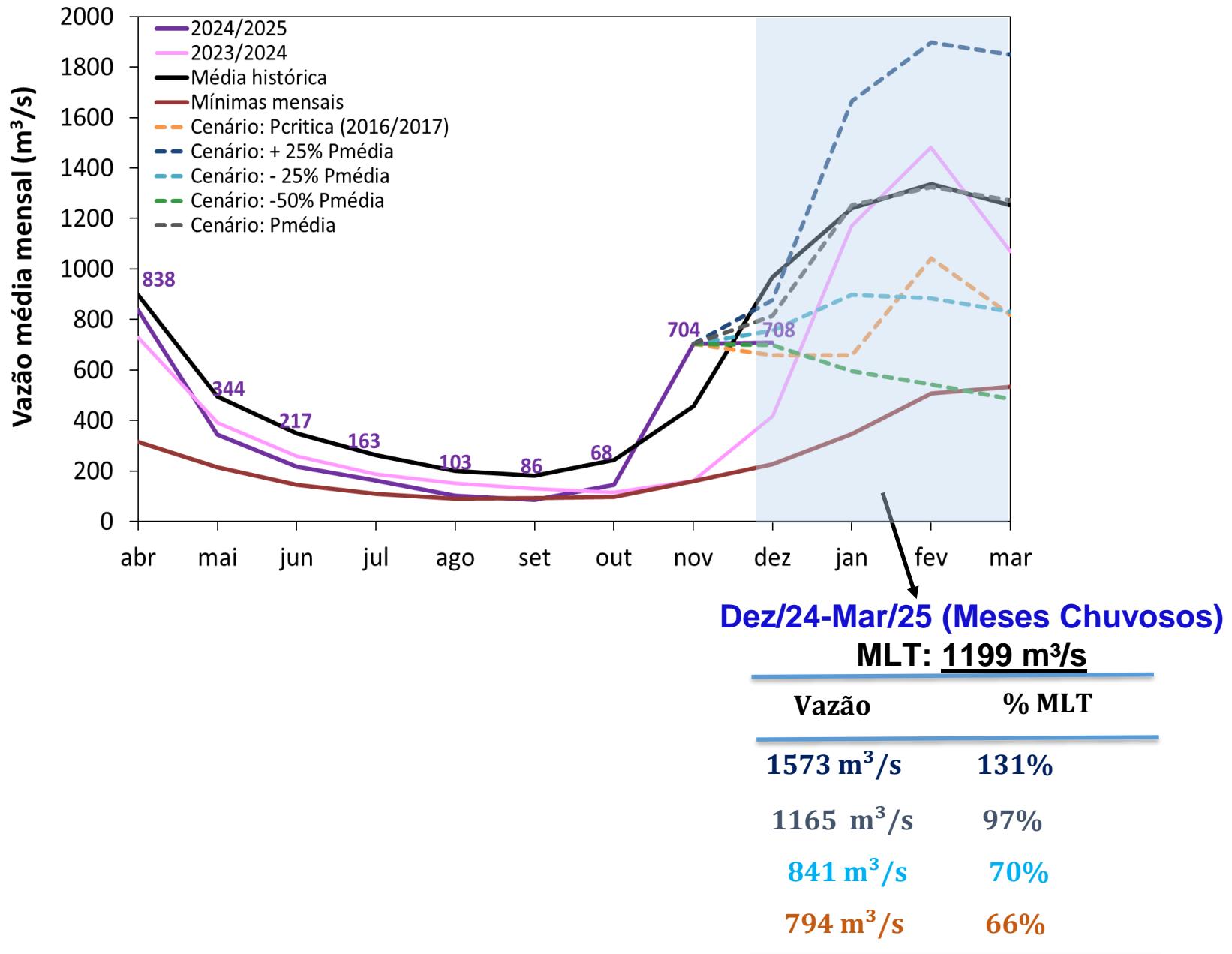
Índice Bivariado de Seca (Precipitação-Cota/Vazão) - TSI

Previsão 30 Dias



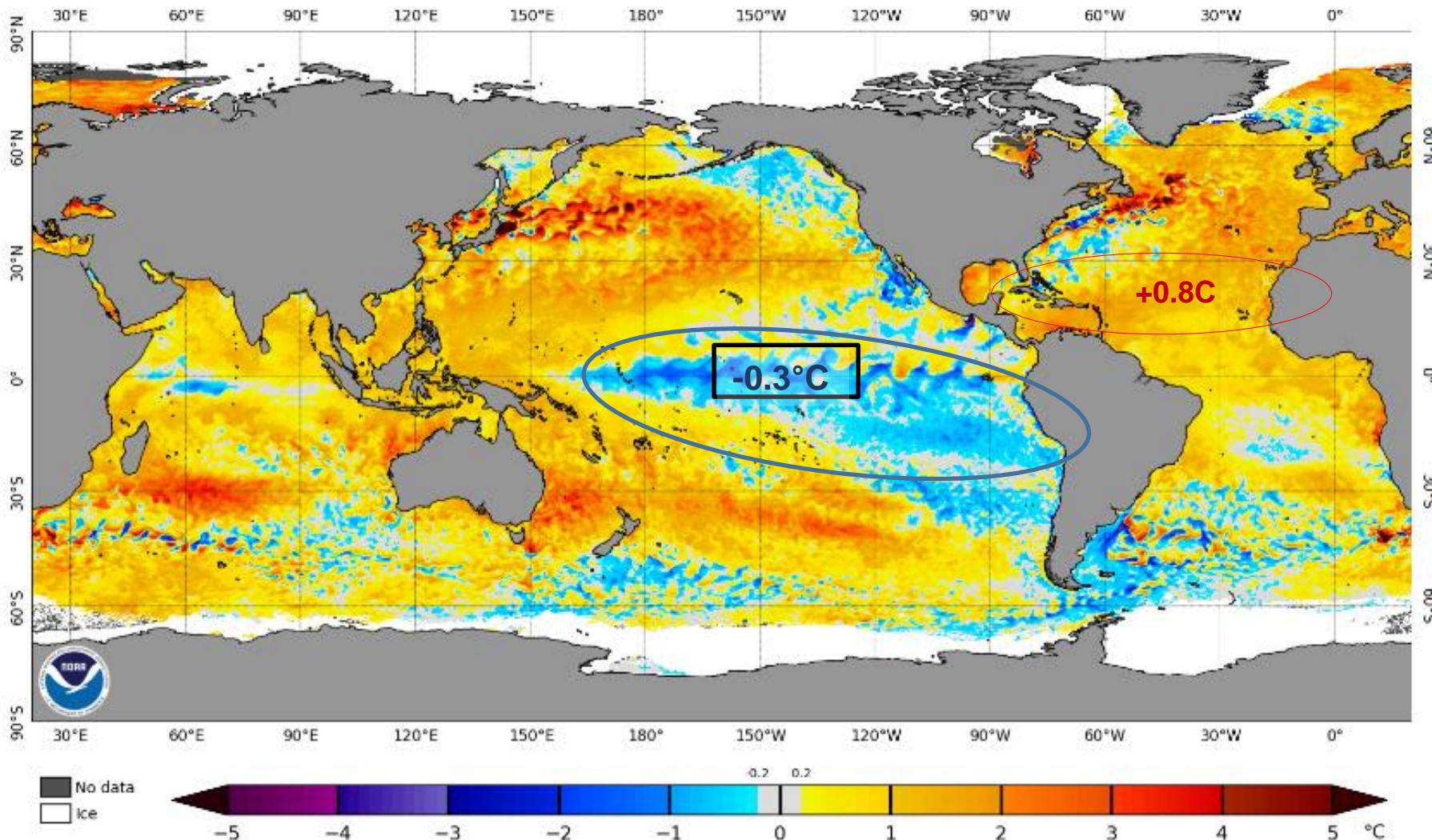
	OBSERVADO	PREVISTO
Serra Mesa	Fraca	NORMAL
Descarreto	Moderada	FRACA
Conc. Araguaia	Excepcional	MODERADA
Araguatins	Excepcional	MODERADA
Tucuruí	Extrema	SEVERA

Serra da Mesa: Projeção de Vazão (modelo hidrológico PDM-CEMADEN)



Status Atual: La Niña Watch

NOAA Coral Reef Watch Daily 5km SST Anomalies (v3.1) 8 Dec 2024



NINO3.4 SST anomaly plume
 C3S multi-system forecast from 1 Dec 2024
 ECMWF, Met Office, Météo-France, CMCC, DWD, NCEP, JMA, ECCC
 Monthly mean anomalies relative to ERA5 1981-2010 climatology

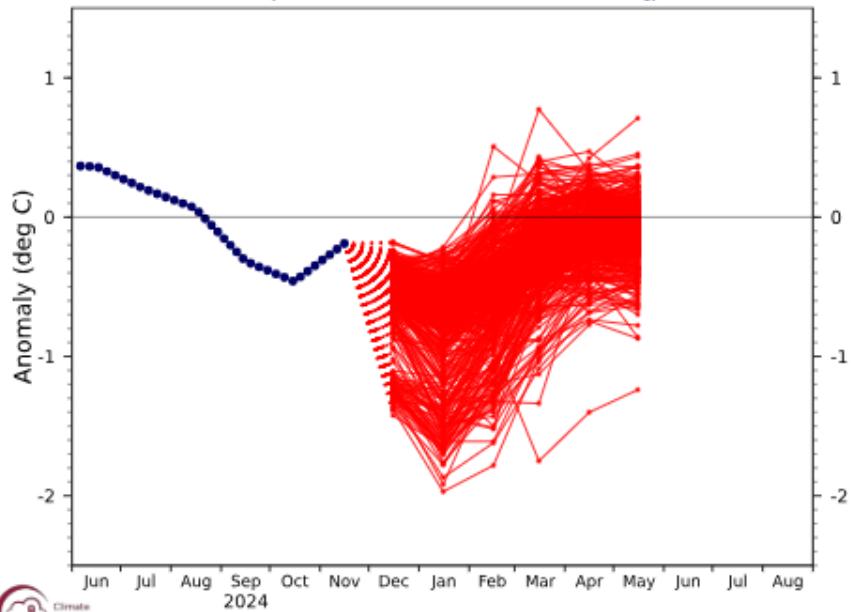
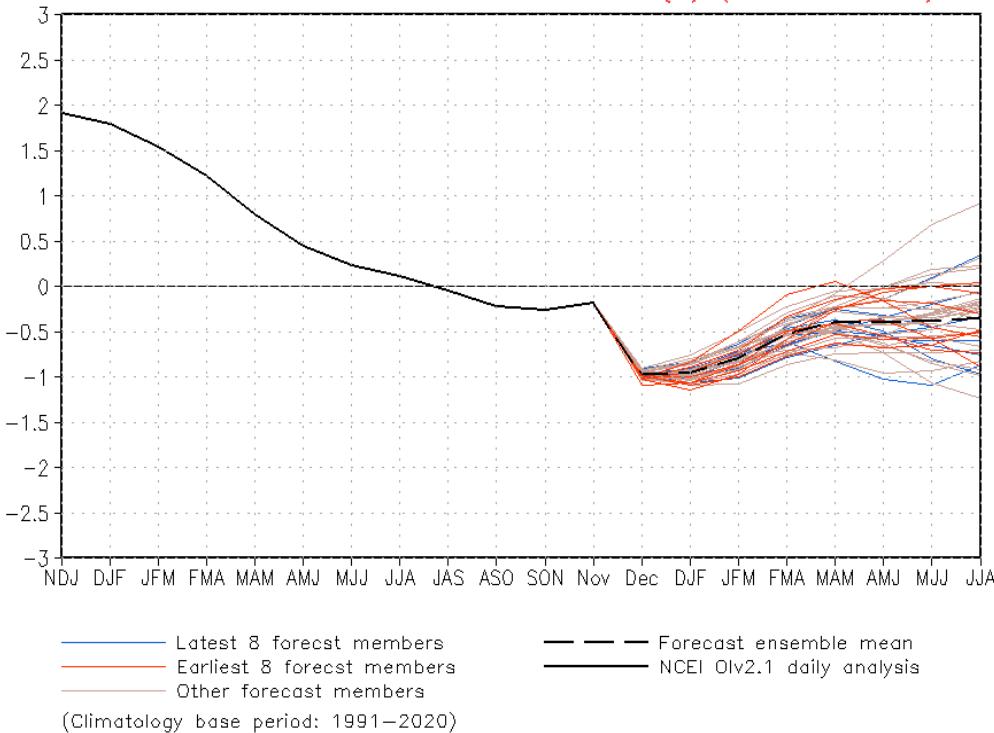


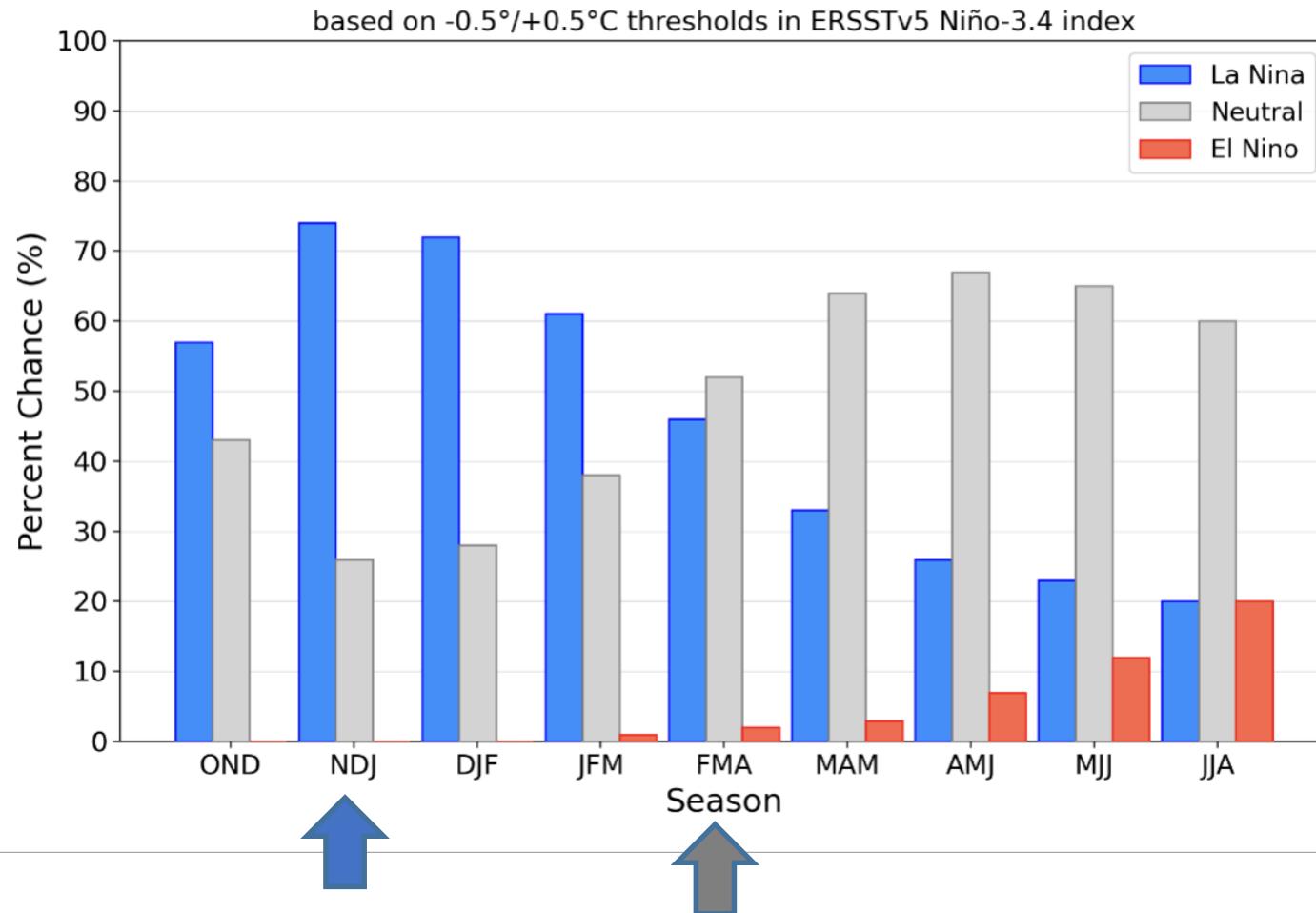
Figure provided by the International Research Institute (IRI) for Climate and Society (updated 19 November 2024).

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



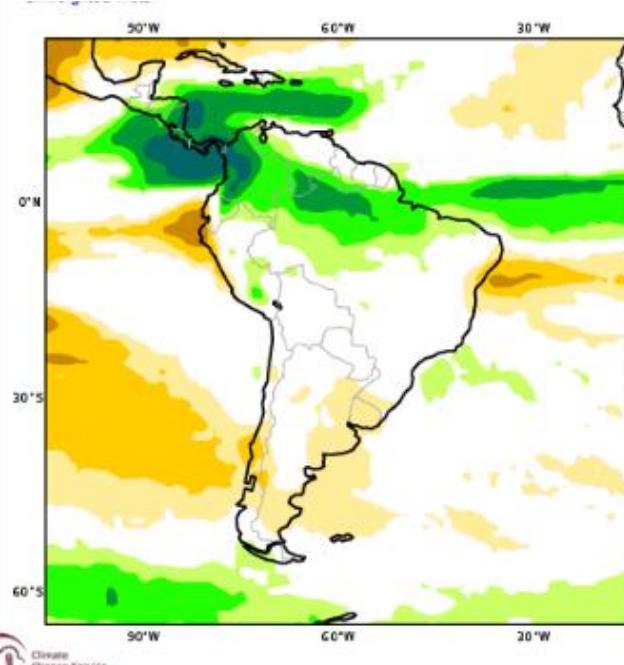
Previsão do “ENSO”

Official NOAA CPC ENSO Probabilities (issued November 2024)

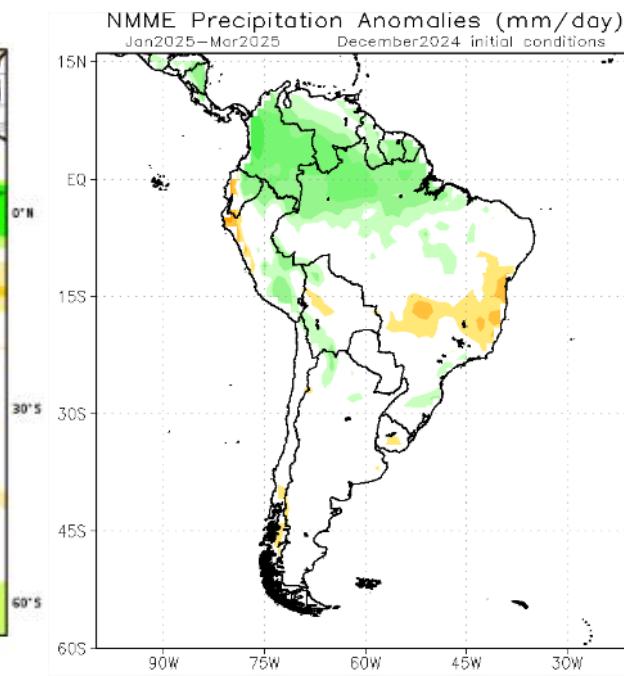


Previsão Sazonal de Chuva Multi-Modelo

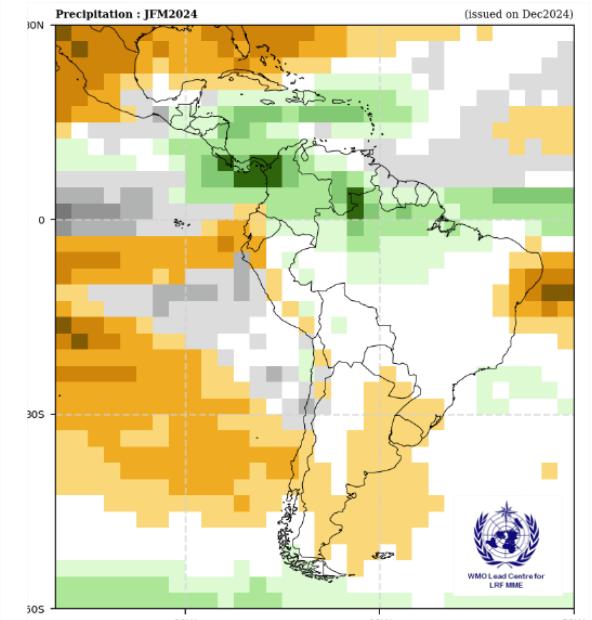
Janeiro-Fevereiro-Março



Modelos Europeus



Modelos Norte Americanos



Modelos da WMO