



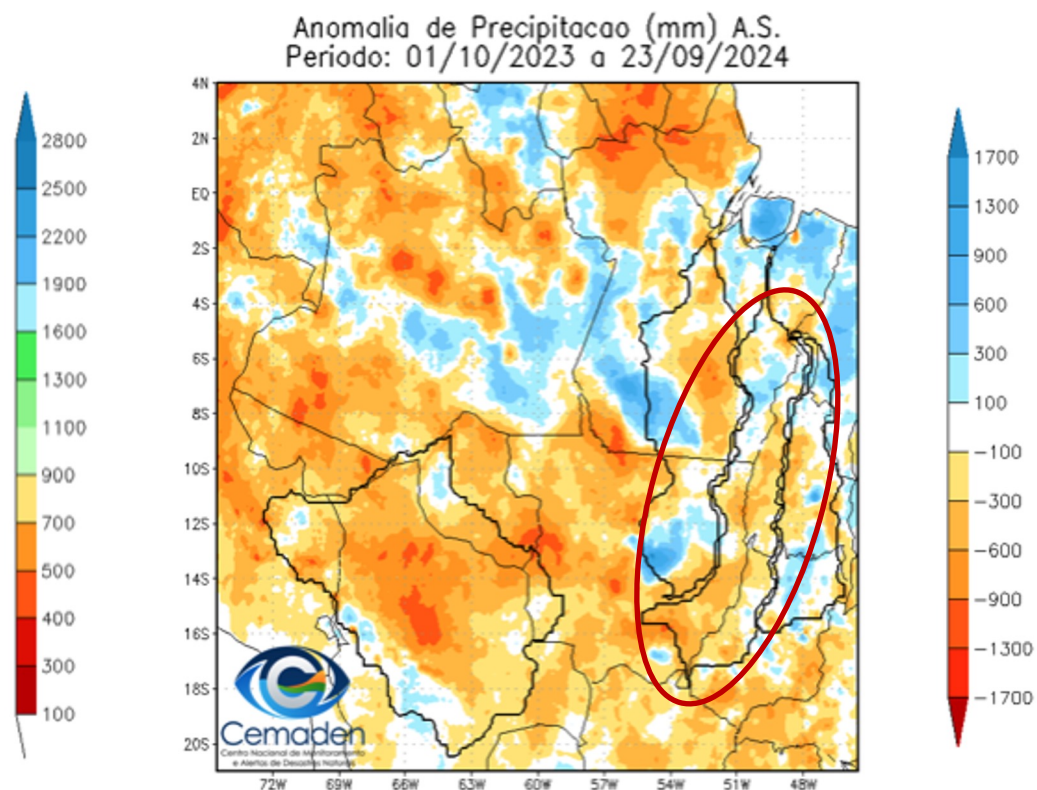
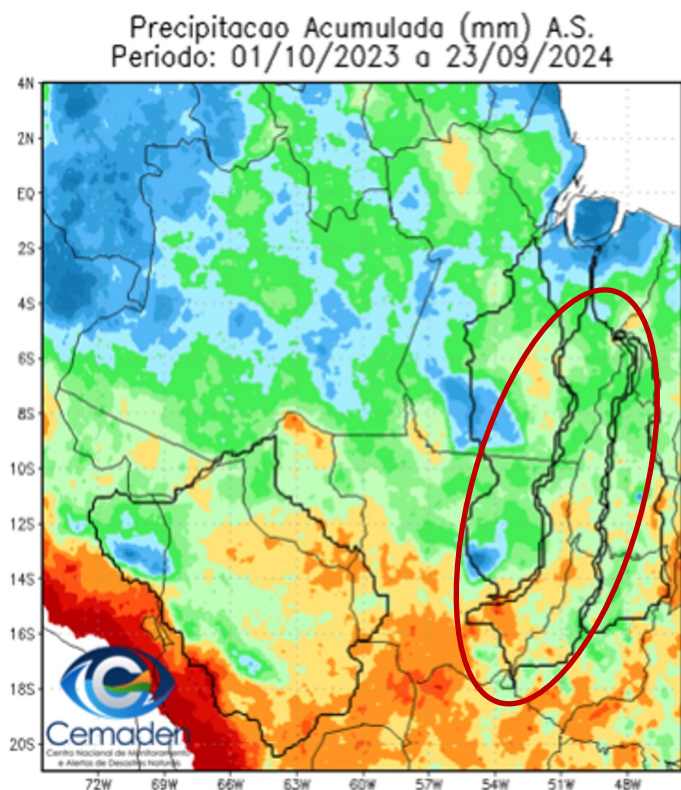
CEMADEN

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

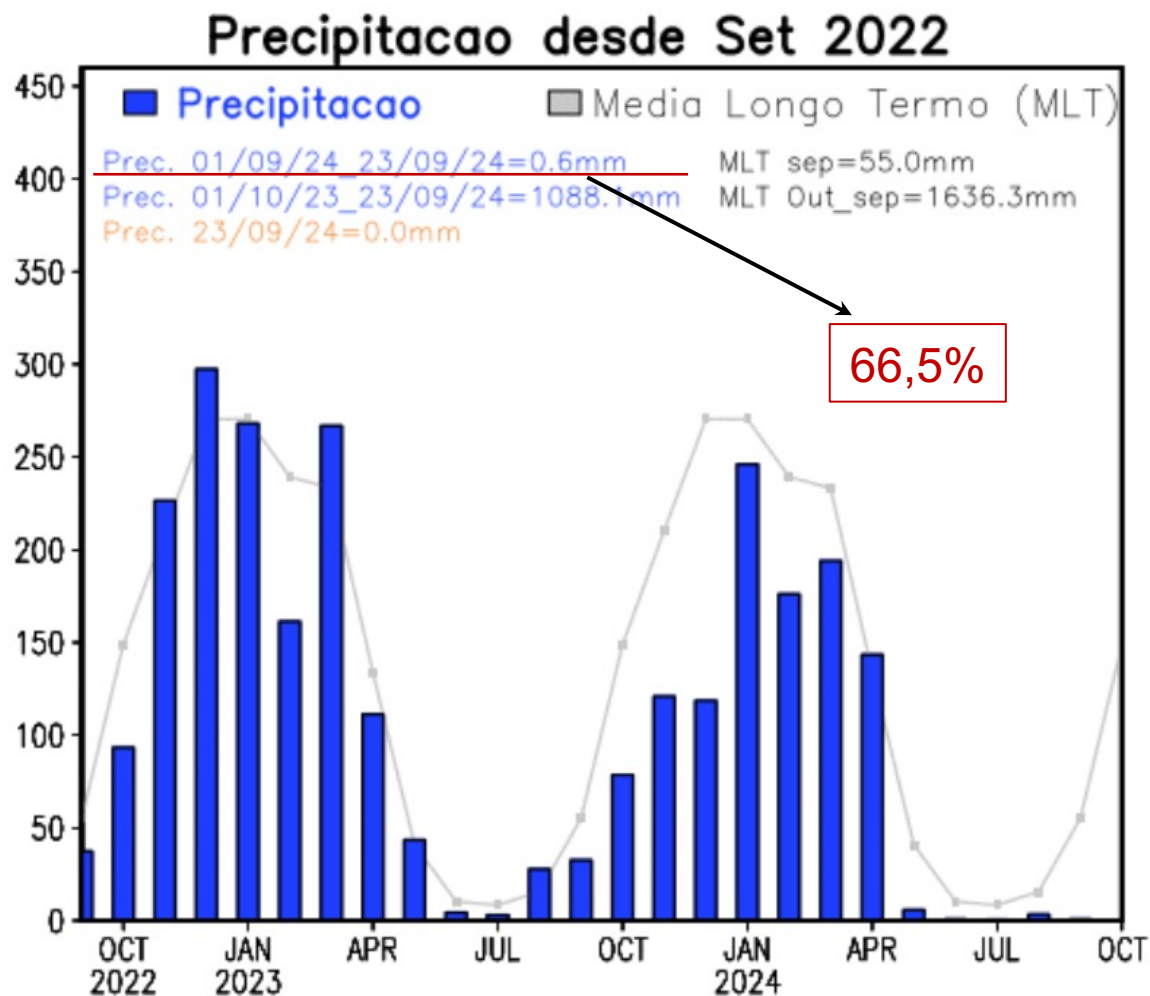
Monitoramento e Previsões para a Bacia do rio Tocantins-Araguaia

Setembro de 2024

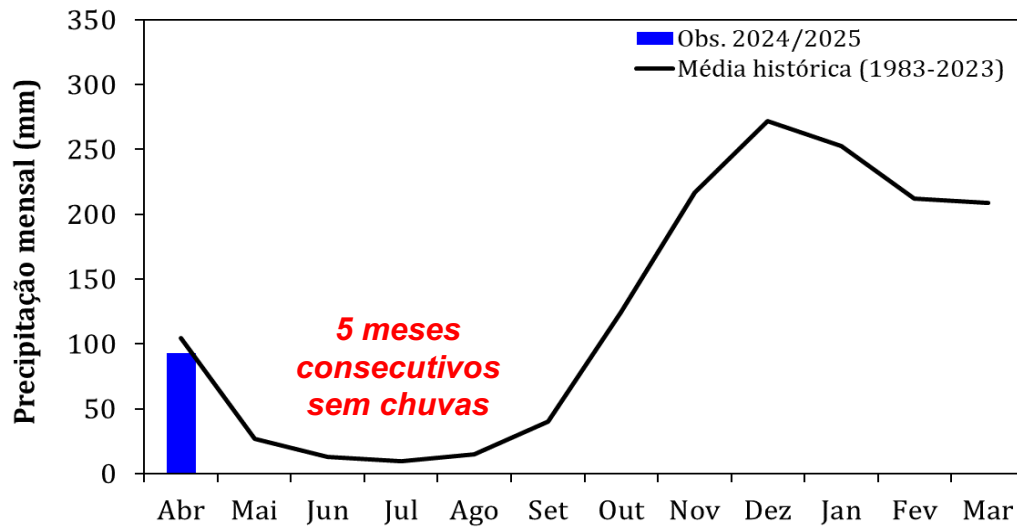
Precipitação Acumulada no Ano Hidrológico



Evolução da Precipitação na bacia Tocantins-Araguaia



Monitoramento UHE Serra da Mesa



Precipitação

Estação Chuvosa - Out a Abr – 1392 mm

2022/2023: 1358 mm (98% da MLT)

2023/2024: 1245 mm (89% da MLT)

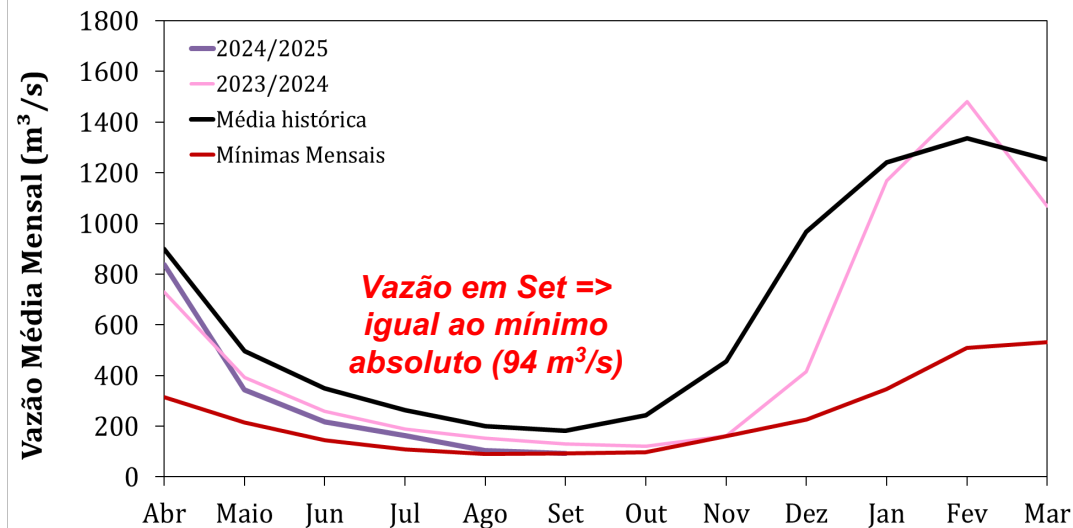
Estação Seca - Maio a Set – 105 mm

2023: 57 mm (54% da MLT)

2024*: 0 mm (0% da MLT)

Setembro/2024*: 0 mm (MLT = 40 mm)

*Até 23/09/2024



Vazão

Estação Chuvosa - Out a Abr – 913 m^3/s

2022/2023: 909 m^3/s (100% da MLT)

2023/2024: 751 m^3/s (82% da MLT)

Estação Seca - Maio a Set – 298 m^3/s

2023: 224 m^3/s (75% da MLT)

2024*: 184 m^3/s (62% da MLT)

Setembro/2024*: 94 m^3/s (52% da MLT)

23/Setembro/24: 85 m^3/s (47% da MLT)

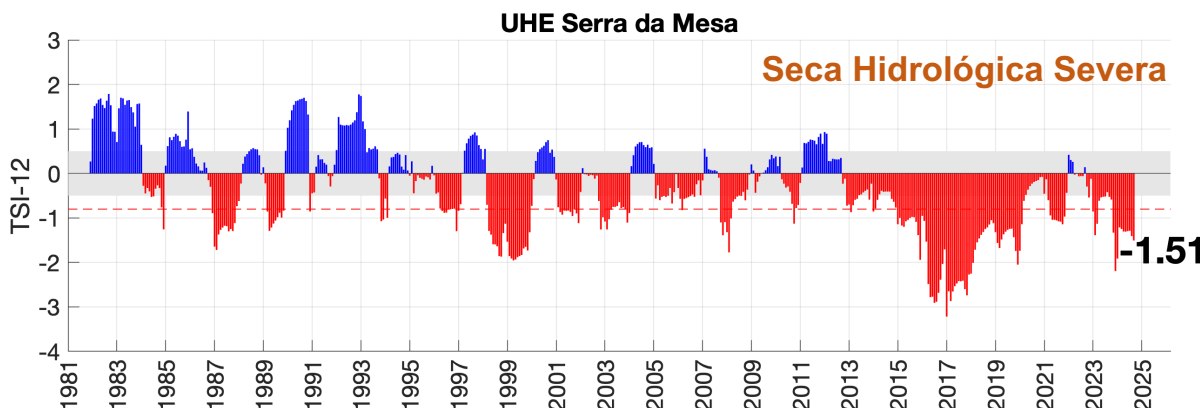
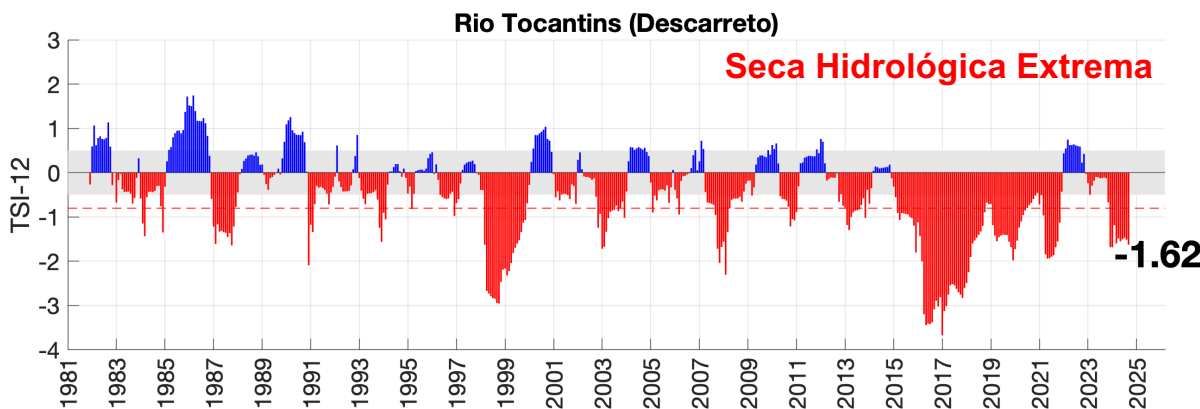
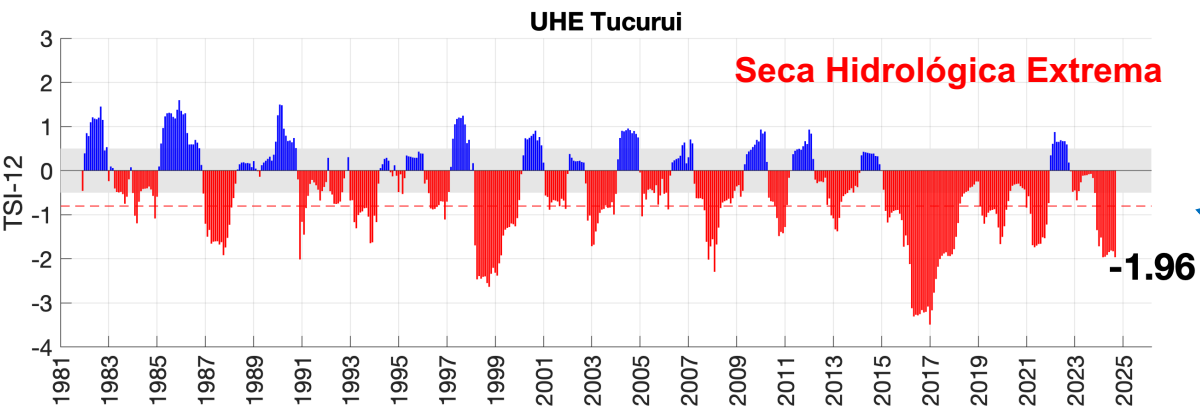
*Até 23/09/2024

Média de Longo Termo – MLT = 1983-2023

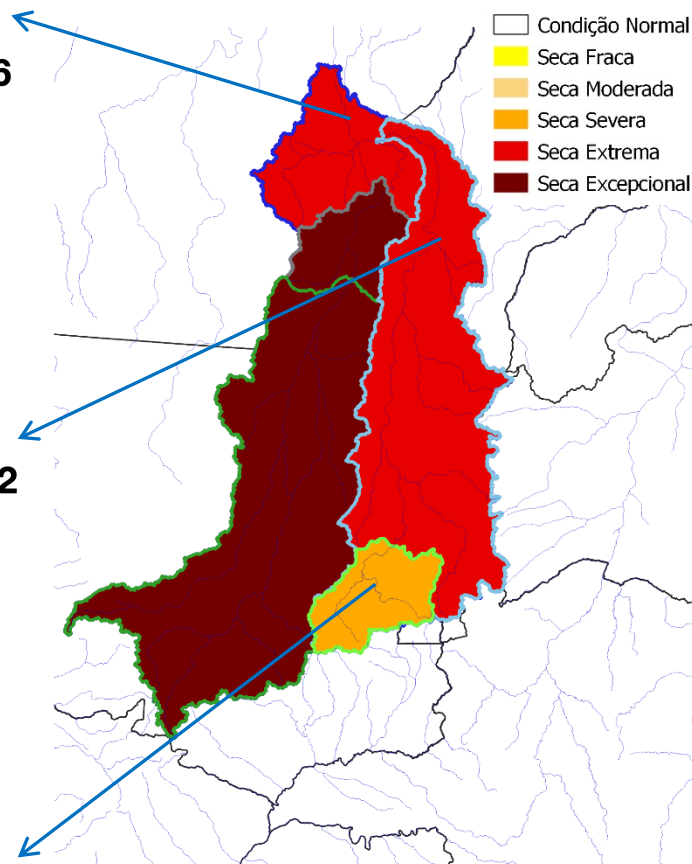
Dados de precipitação: INMET, ANA, CEMADEN

Dados de vazão: ONS e ANA

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



Setembro/2024



Fonte: CEMADEN

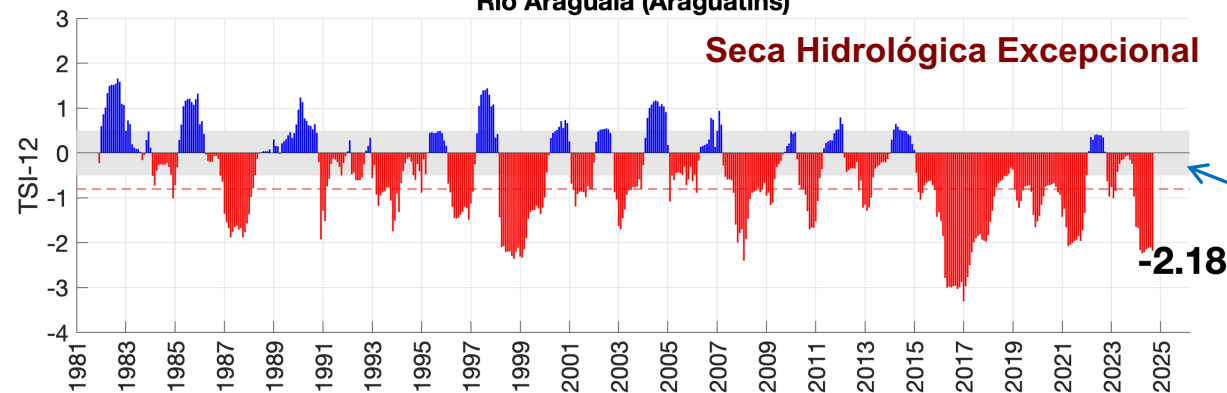
Dados: Precipitação (Cemaden/INMET/CHIRPS) e Vazão (ONS/ANA) - Jan/1981-Setembro/2024.

Índice Padronizado Bivariado (Chuva-Cota) – TSI-12

Setembro/2024

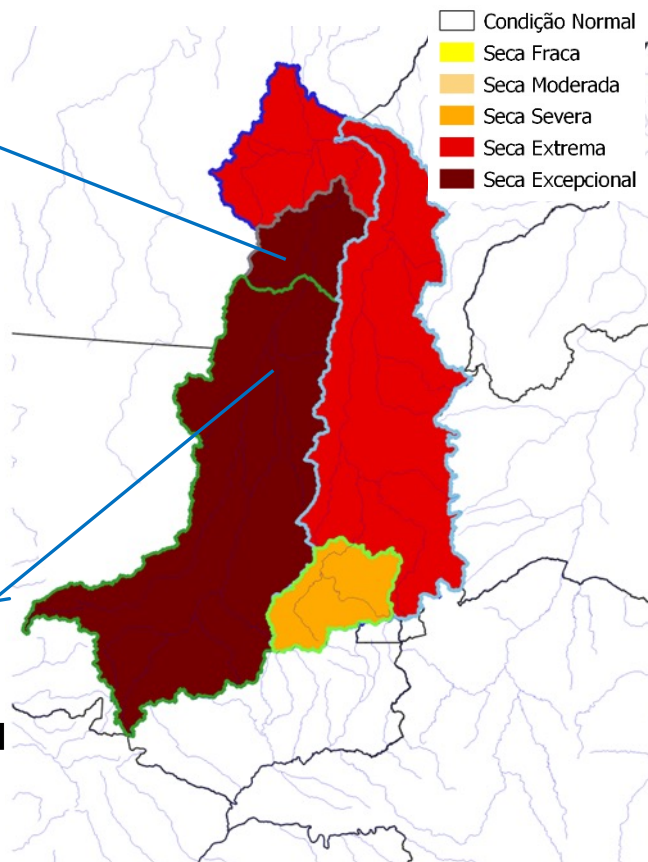
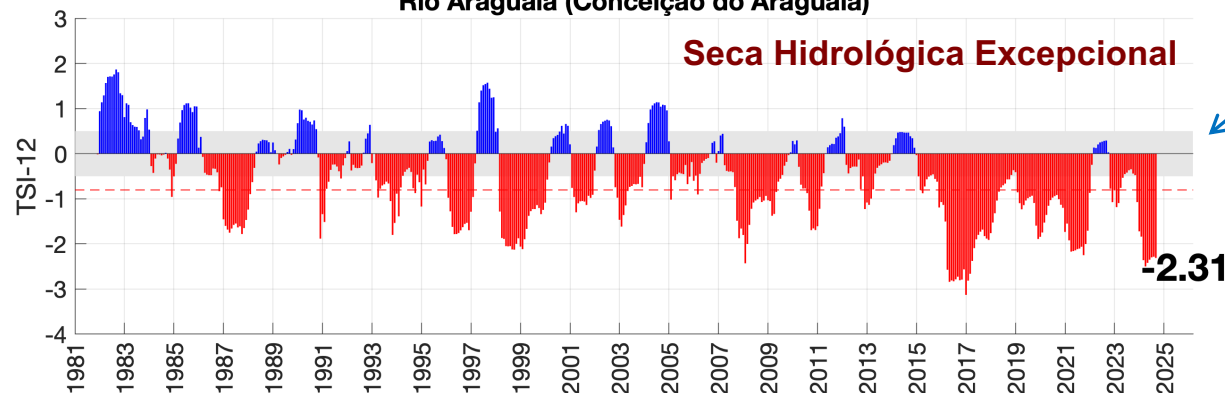
Rio Araguaia (Araguatins)

Seca Hidrológica Excepcional



Rio Araguaia (Conceição do Araguaia)

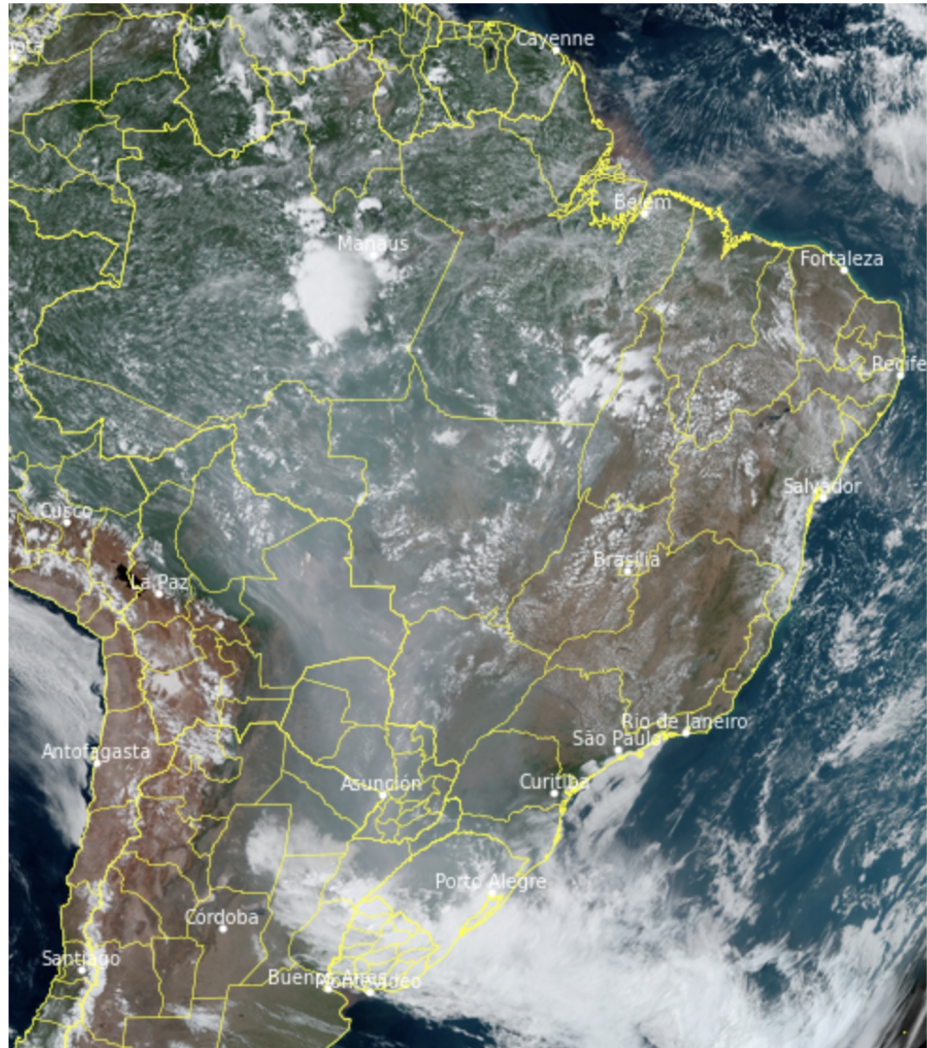
Seca Hidrológica Excepcional



Fonte: CEMADEN

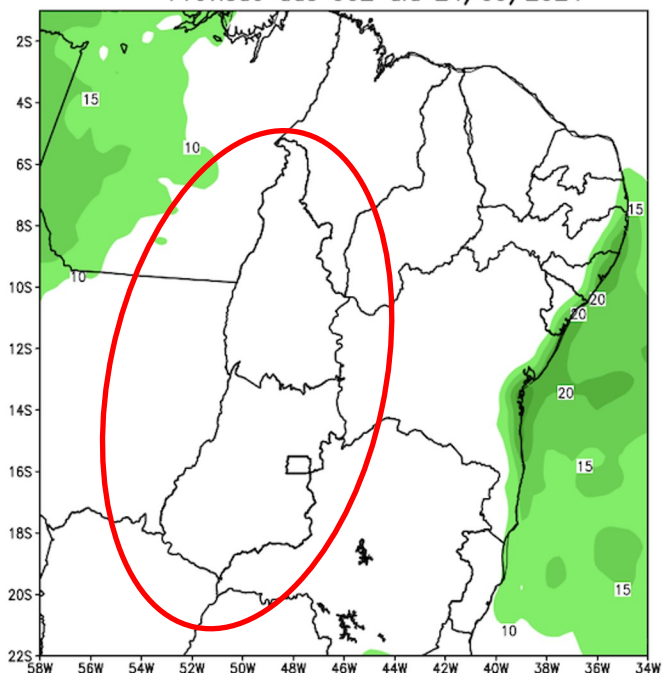
Dados: Precipitação (Cemaden/INMET/CHIRPS) e Vazão (ONS/ANA) - Jan/1981-Setembro/2024.

Situação Meteorológica Atual

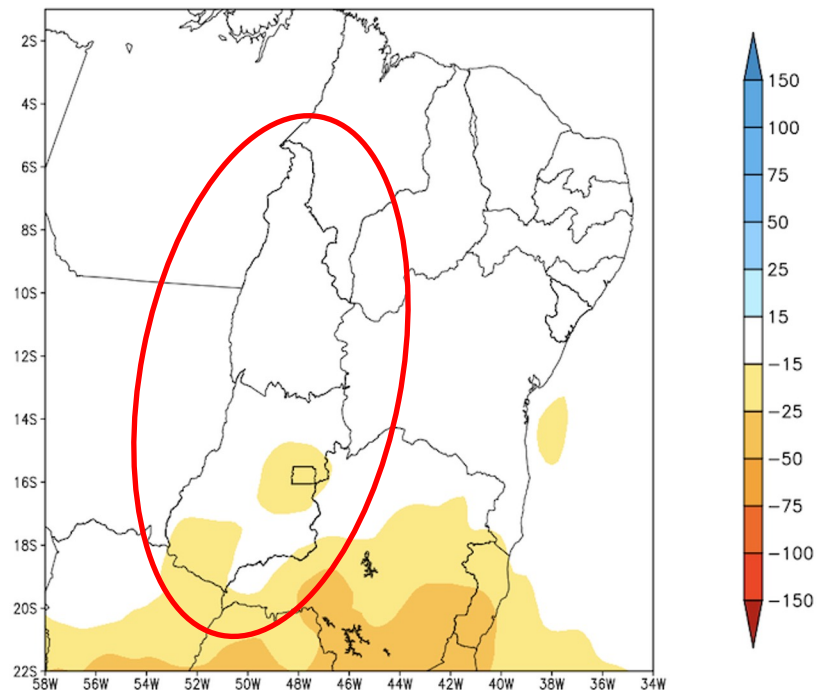


Previsão de Chuva Próximos 14 dias

GEFS / BRASIL_NE
Precipitacao acumulada 14dias (mm)
Previsao das 00Z dia 24/09/2024

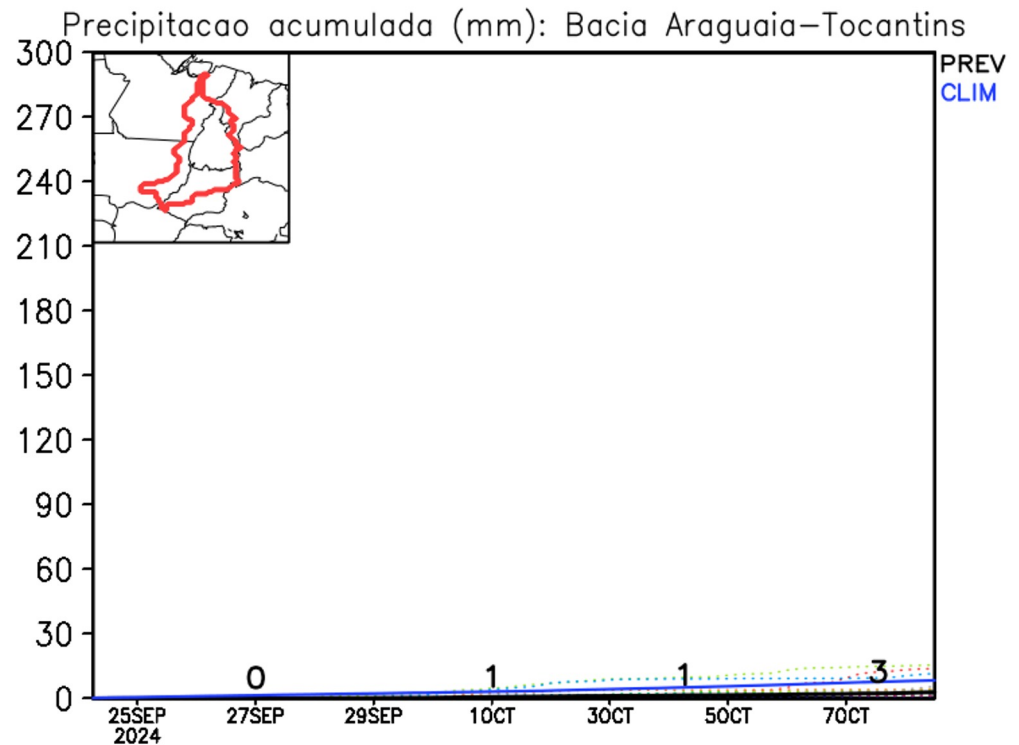
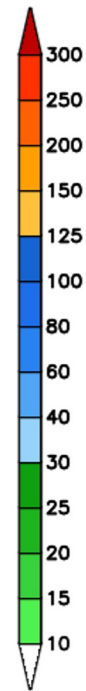
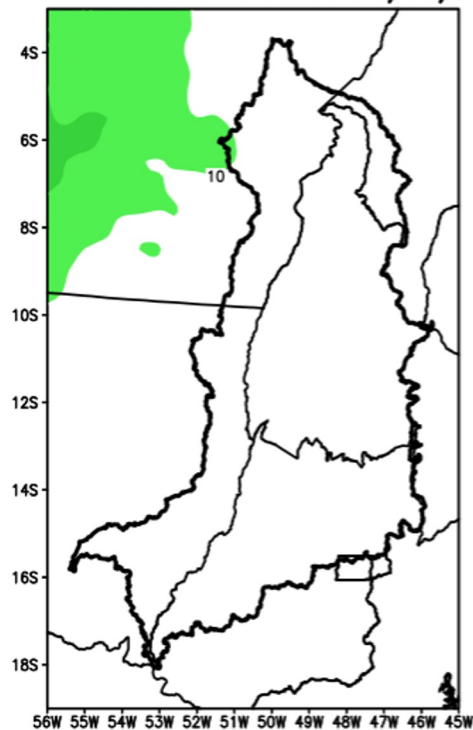


Anomalia de Precipitacao BR_NE (mm)
Periodo: 2024092400 a 2024100800



Previsão Bacia Tocantins-Araguaia

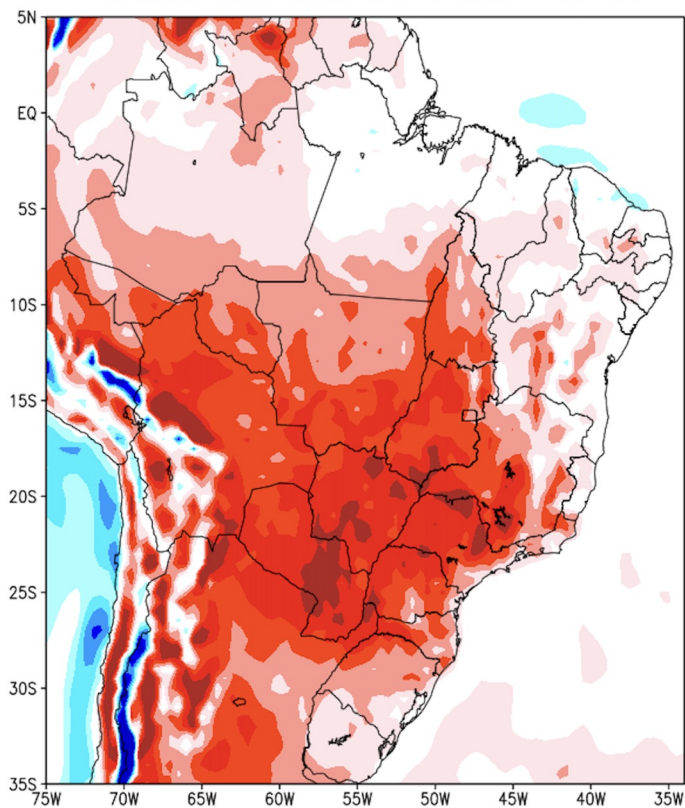
GEFS / Bacia Araguaia-Tocantins
Precipitacao acumulada em 14 dias (mm)
Previsao das 00Z dia 24/09/2024



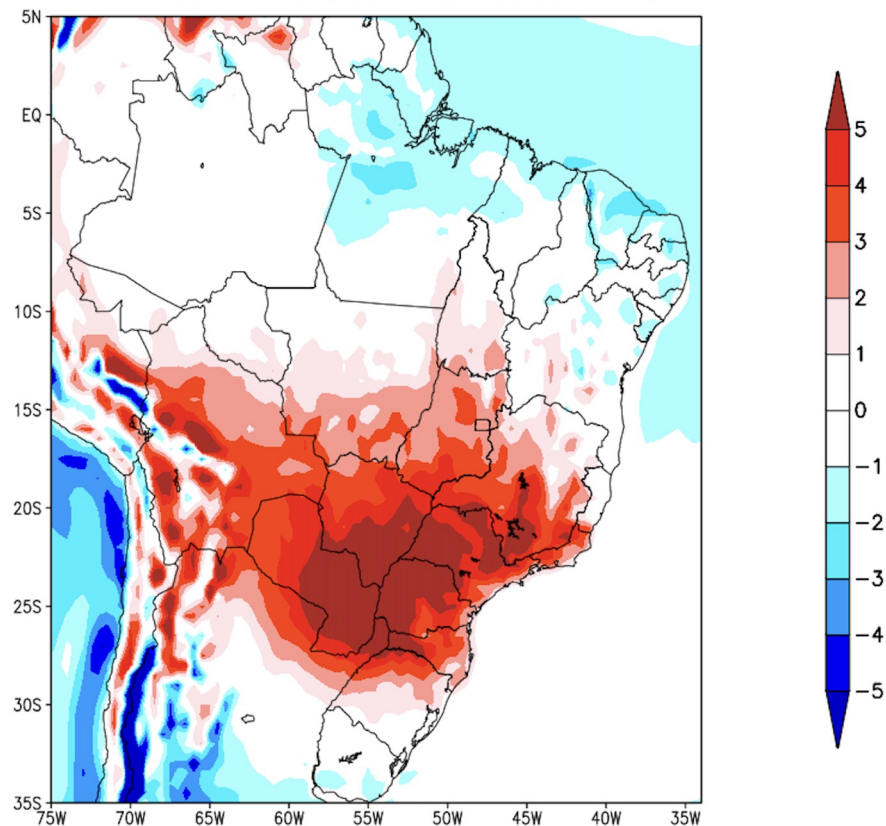
Fonte: GEFS/NOAA

Previsão de Temperatura Próximos 14 dias

Anomalia de Temperatura BR (C)
Período: 2024092400 a 2024100100

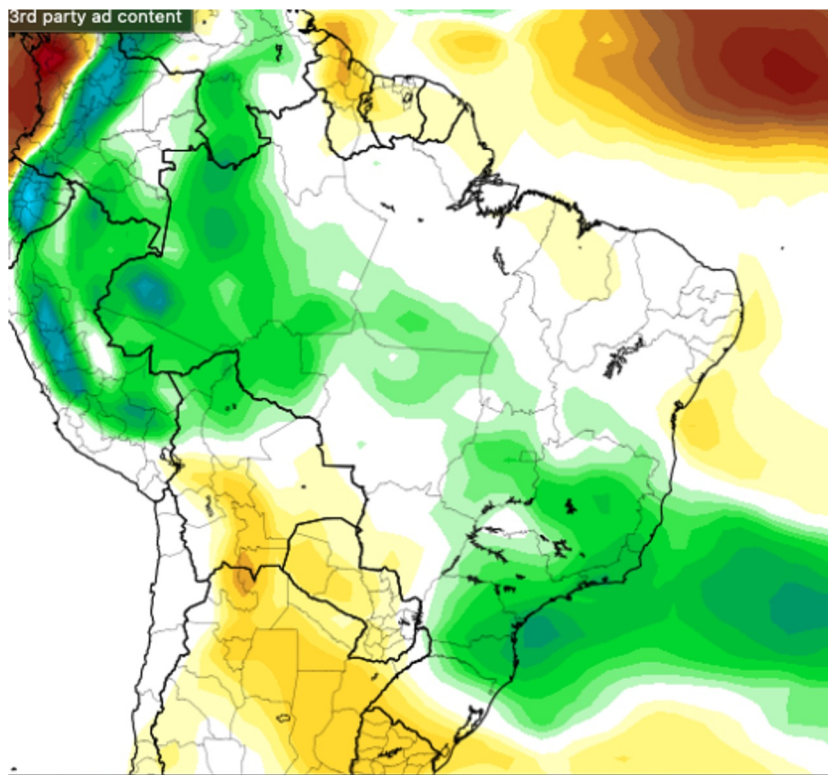


Anomalia de Temperatura BR (C)
Período: 2024100200 a 2024100800

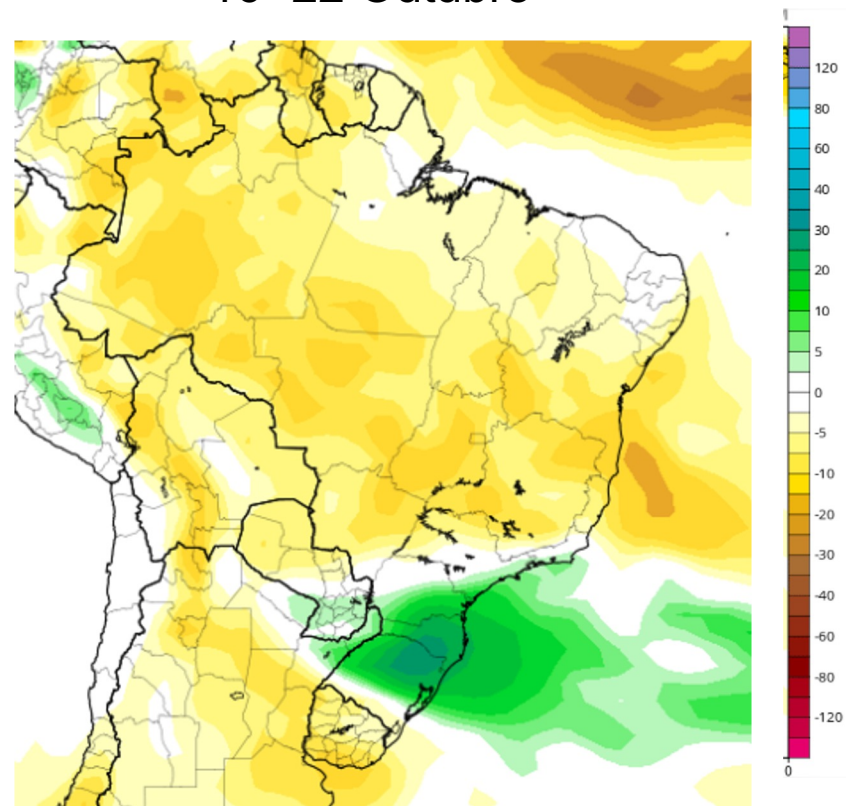


Precipitação: Tendência 3ª e 4ª semanas

08-15 Outubro

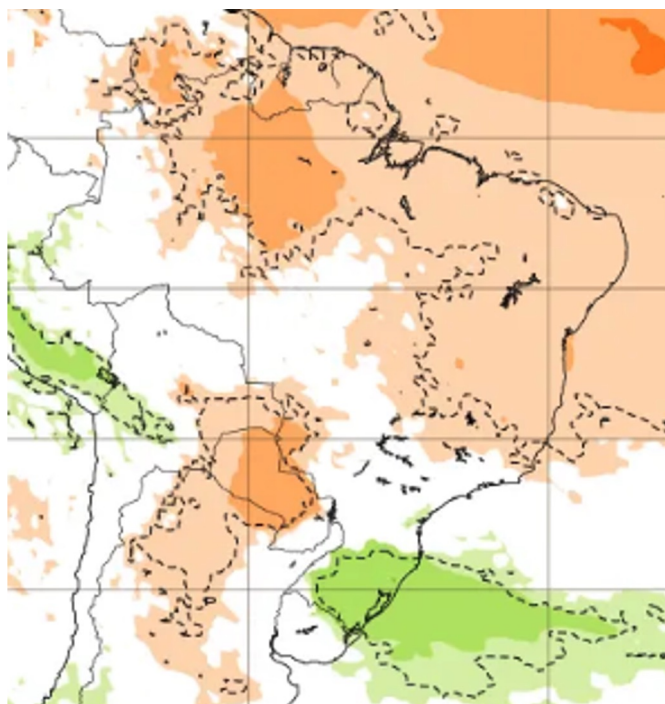


16- 22 Outubro

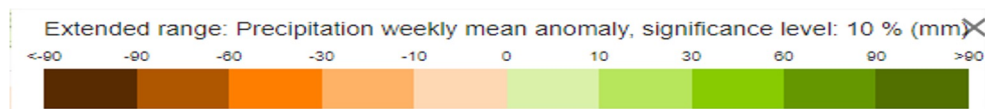
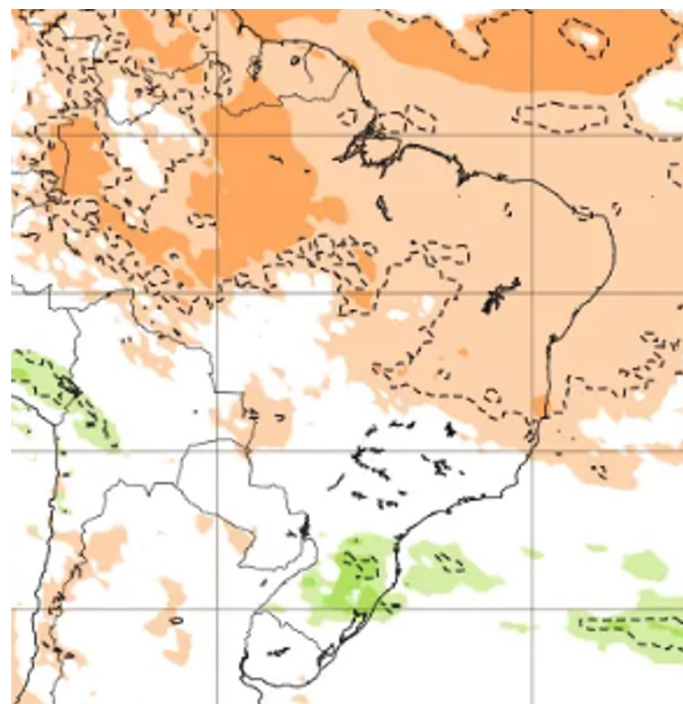


Precipitação: Tendência 3ª e 4ª semanas

07-13 Outubro

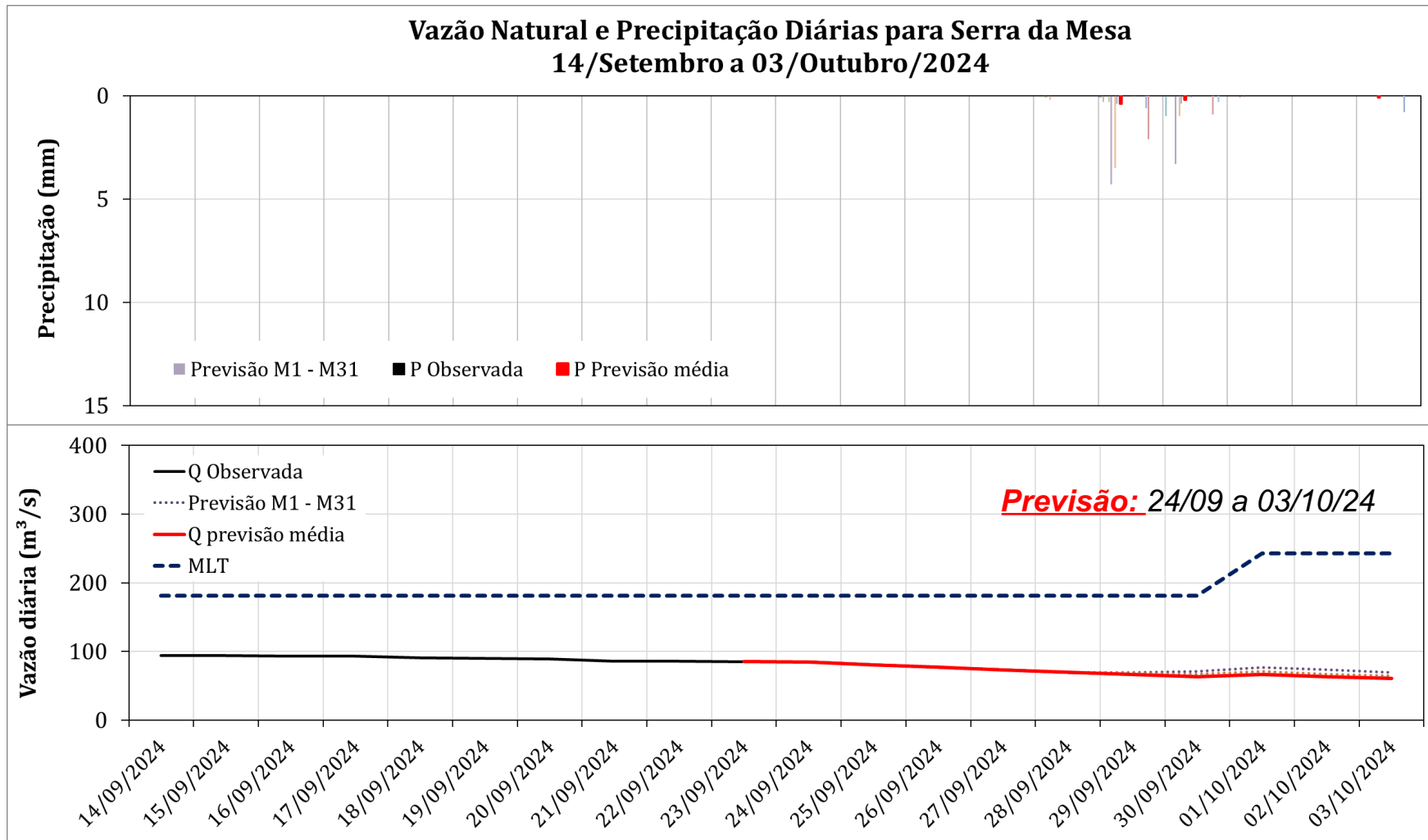


14-21 Outubro

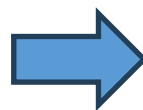


MODELO ECMWF

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

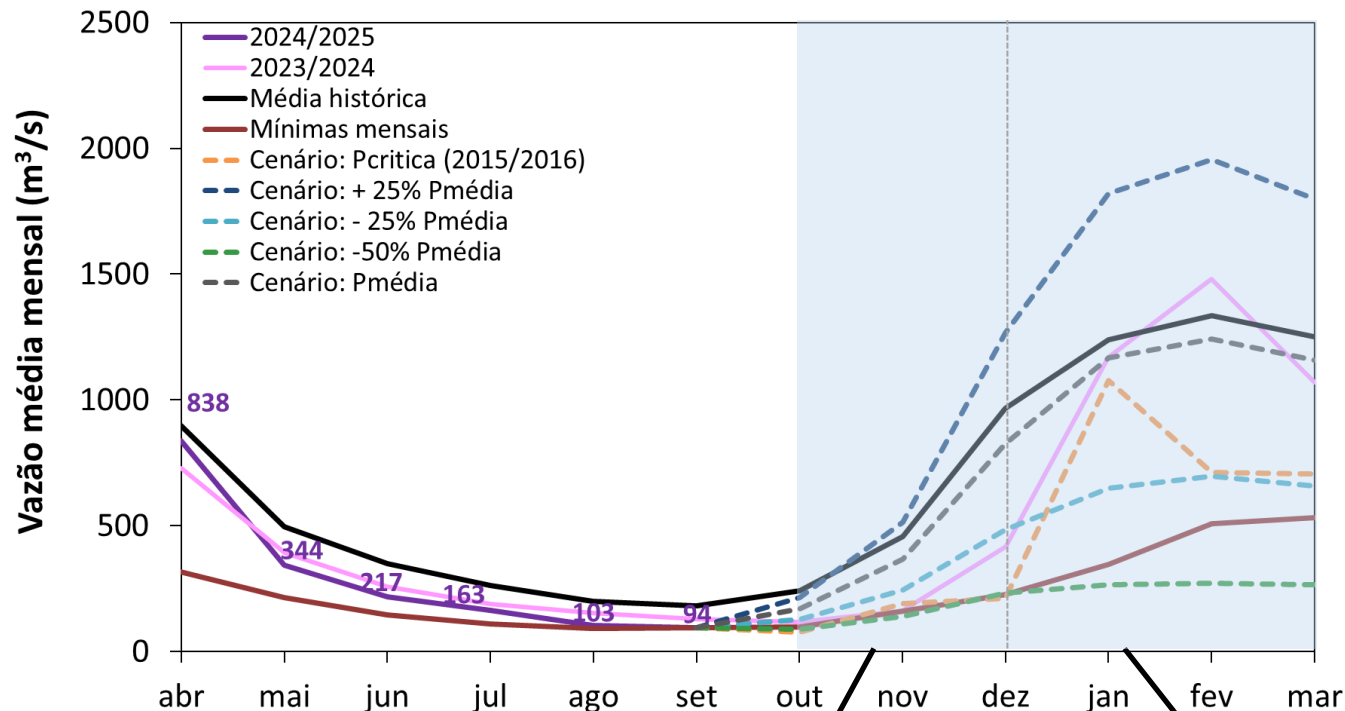


**Previsão média para
os próximos 10 dias: 71 m³/s**



**39% da MLT de Setembro
29% da MLT de Outubro**

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



Out-Dez (Meses Chuvosos)

MLT: 555 m³/s

Vazão	% MLT
665 m³/s	120%
454 m³/s	82%
285 m³/s	51%
159 m³/s	29%

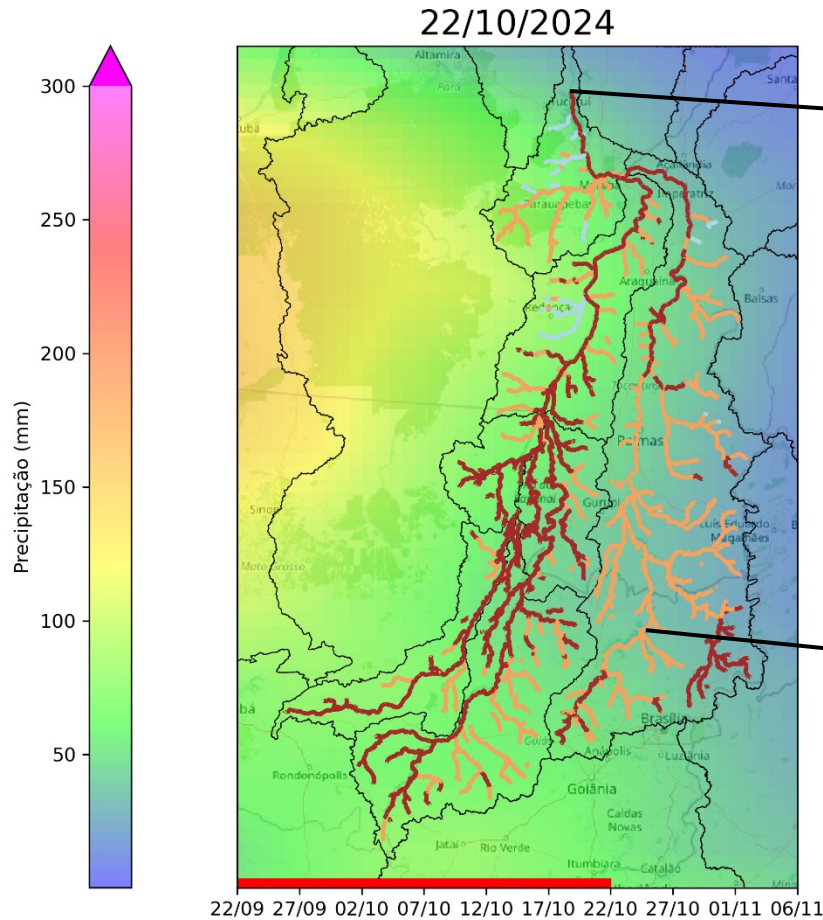
Out-Mar (Estação Chuvosa)

MLT: 916 m³/s

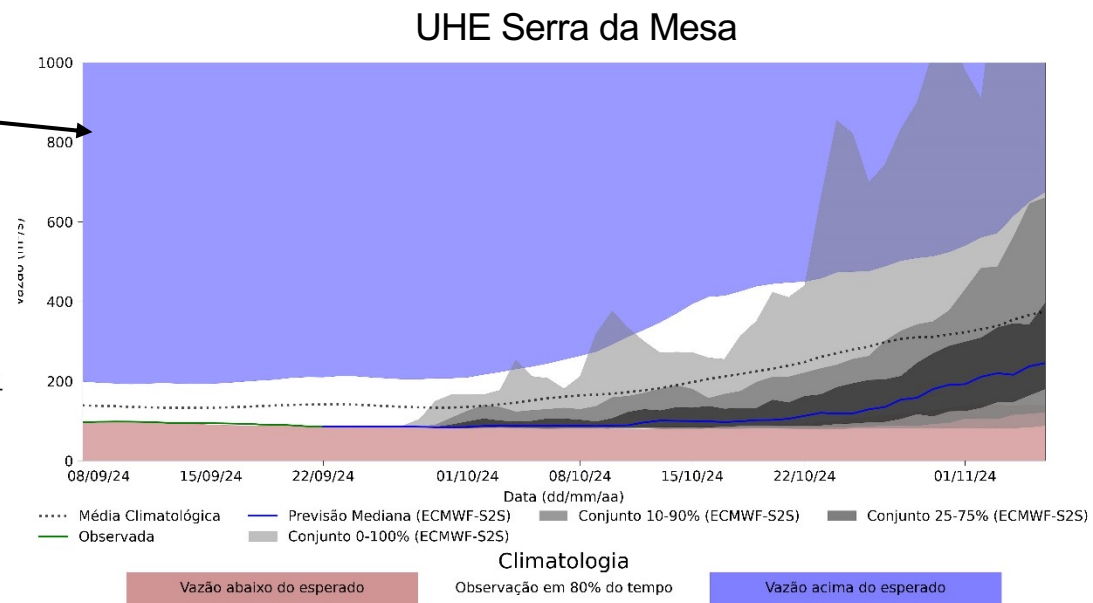
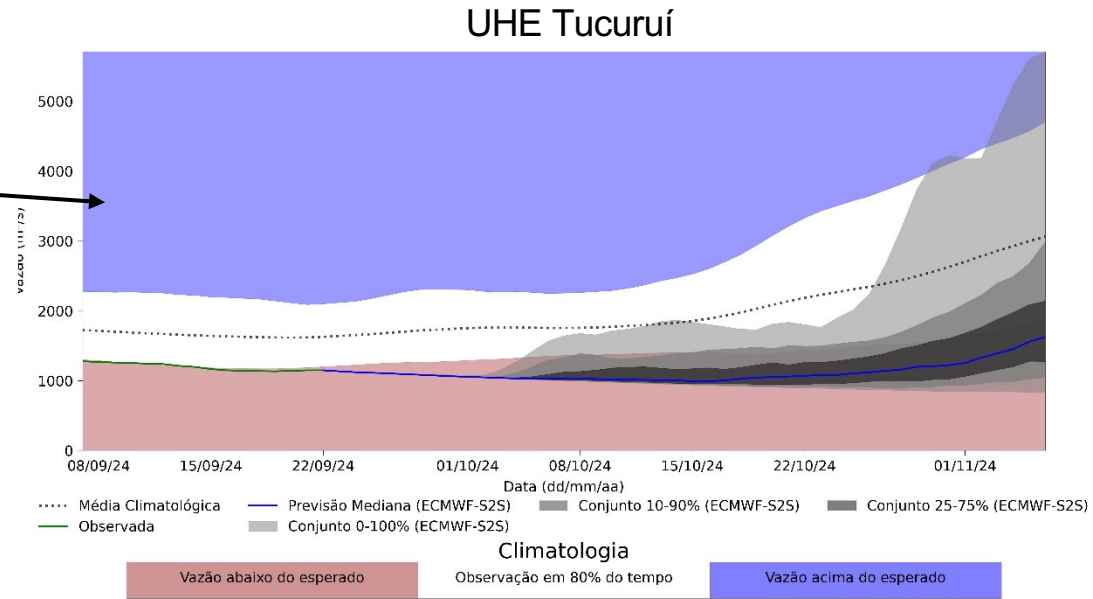
Vazão	% MLT
1261 m³/s	138%
822 m³/s	90%
477 m³/s	52%
496 m³/s	54%

Previsão de vazão natural na Bacia Rio Tocantins-Araguaia 45 dias (Modelo hidrológico MHD)

Previsão: 23/09/24 a 06/11/2024



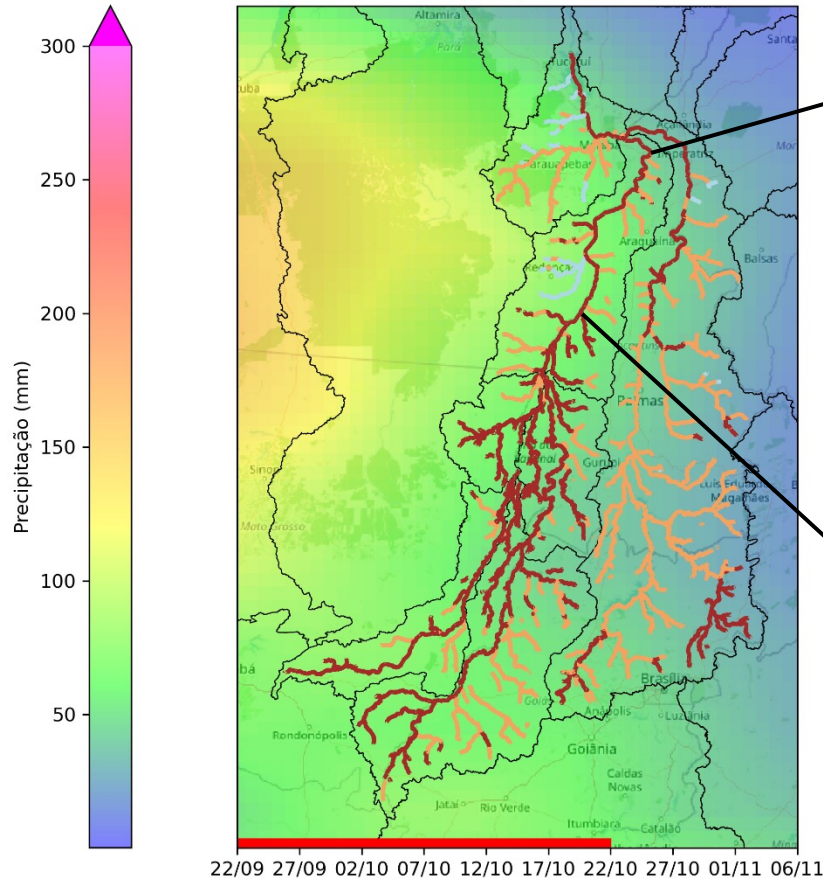
Previsão Meteorológica: ECMWF-S2S
Dados: Meteorológicos (INMET/MERGE) e
Vazão (ANA/ONS)
MLT: 2000-2023



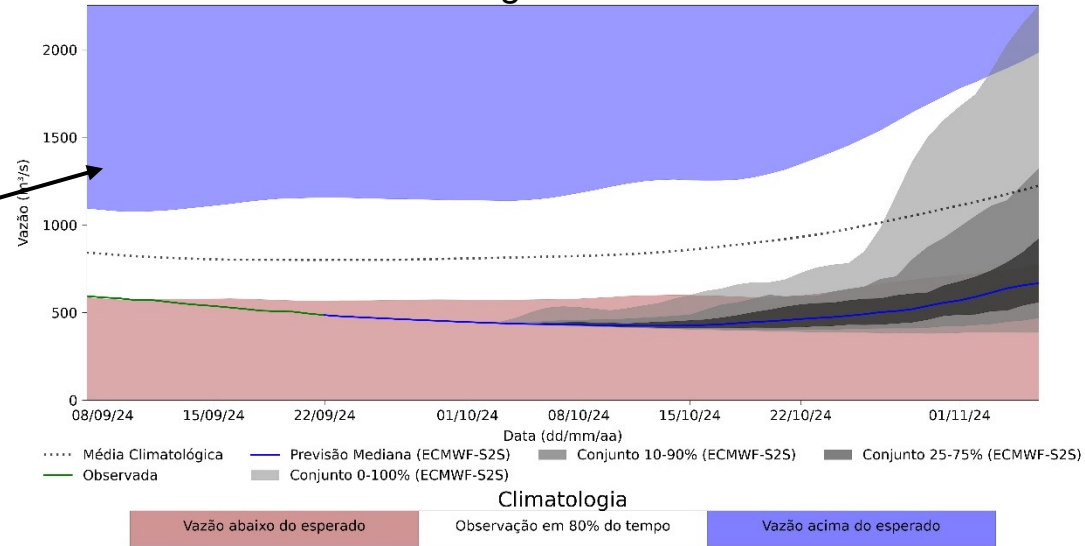
Previsão de vazão natural na Bacia Rio Tocantins-Araguaia 45 dias (Modelo hidrológico MHD)

Previsão: 23/09/24 a 06/11/2024

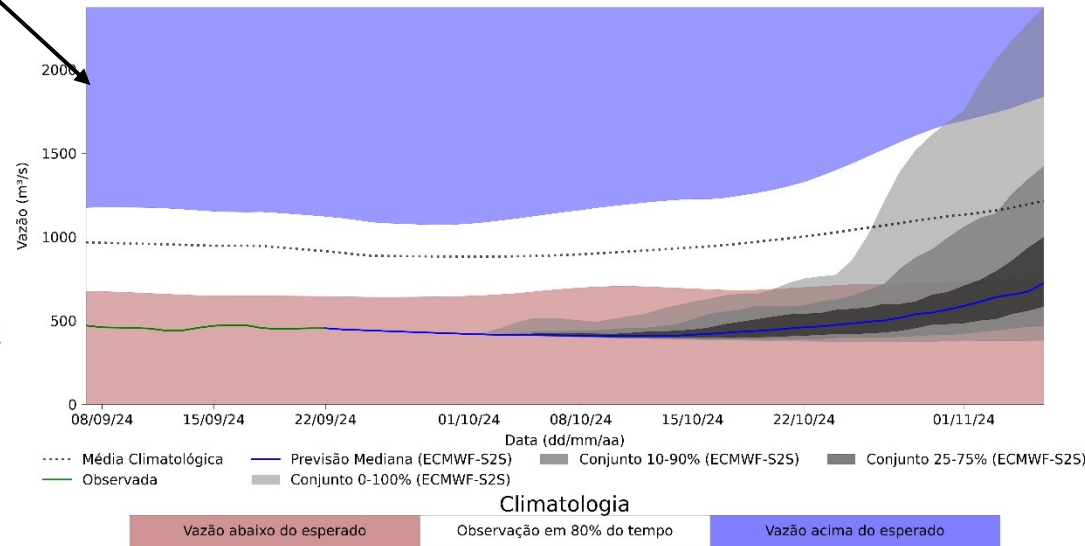
22/10/2024



Araguatins - TO



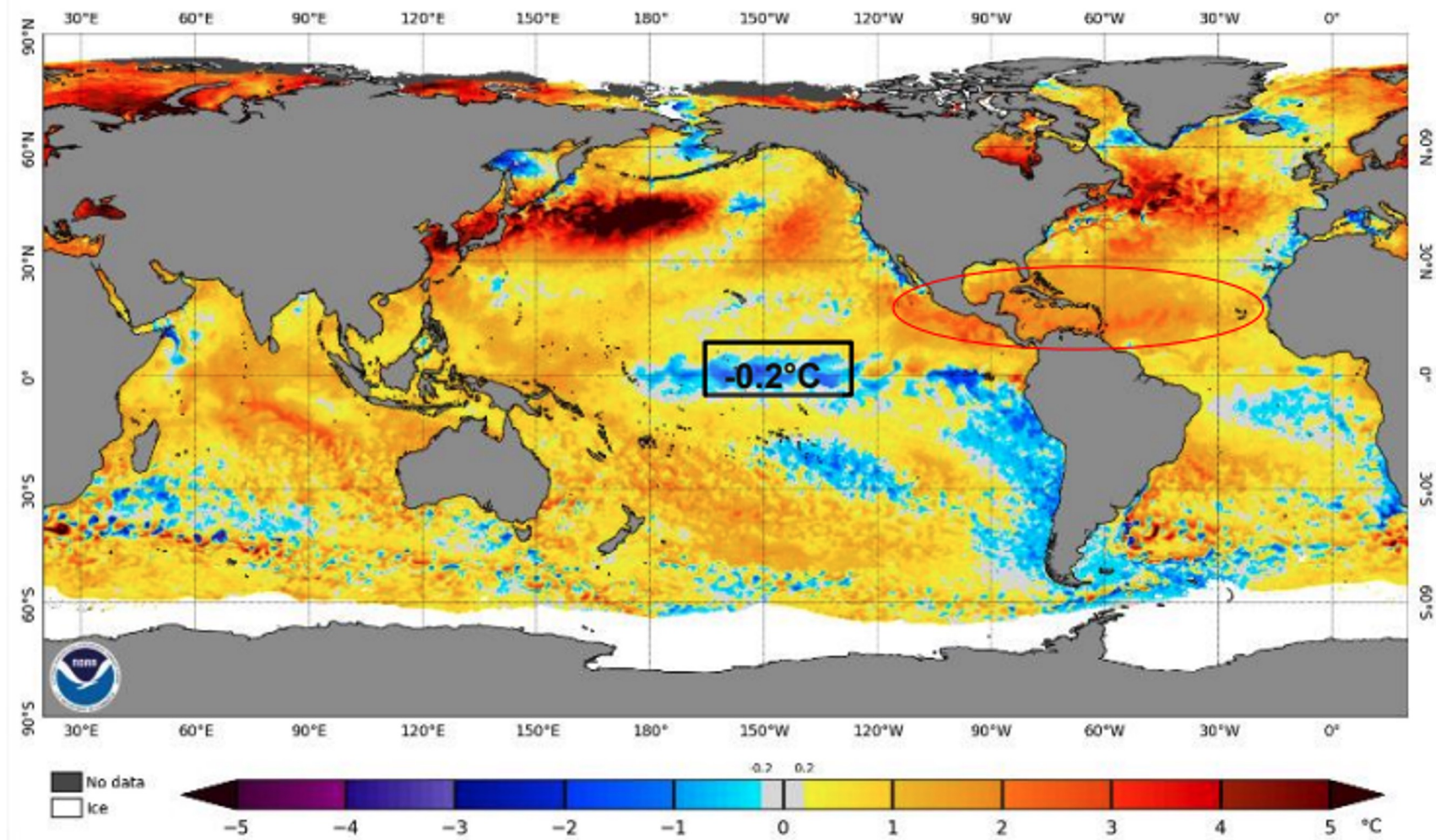
Conceição do Araguaia - PA



Previsão Meteorológica: ECMWF-S2S
Dados: Meteorológicos (INMET/MERGE) e
Vazão (ANA/ONS)
MLT: 2000-2023

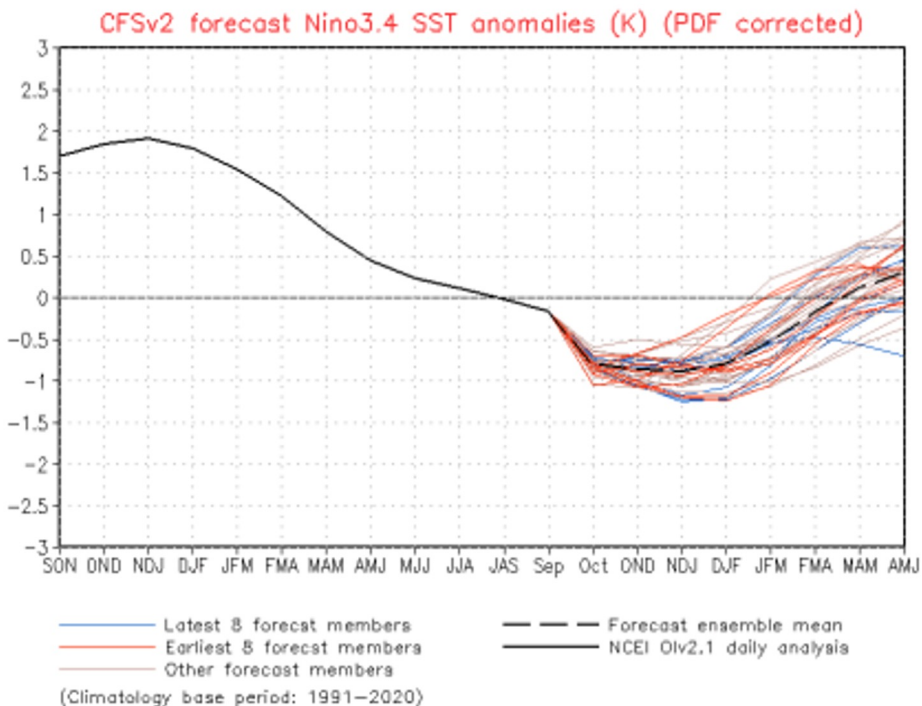
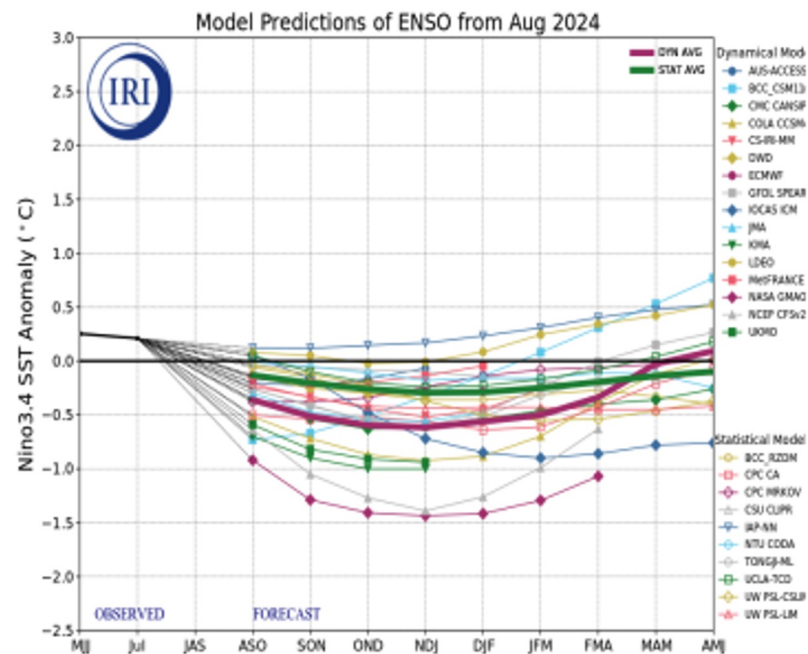
Status Atual: **La Niña Watch**

NOAA Coral Reef Watch Daily 5km SST Anomalies (v3.1) 16 Sep 2024



FONTE: NOAA

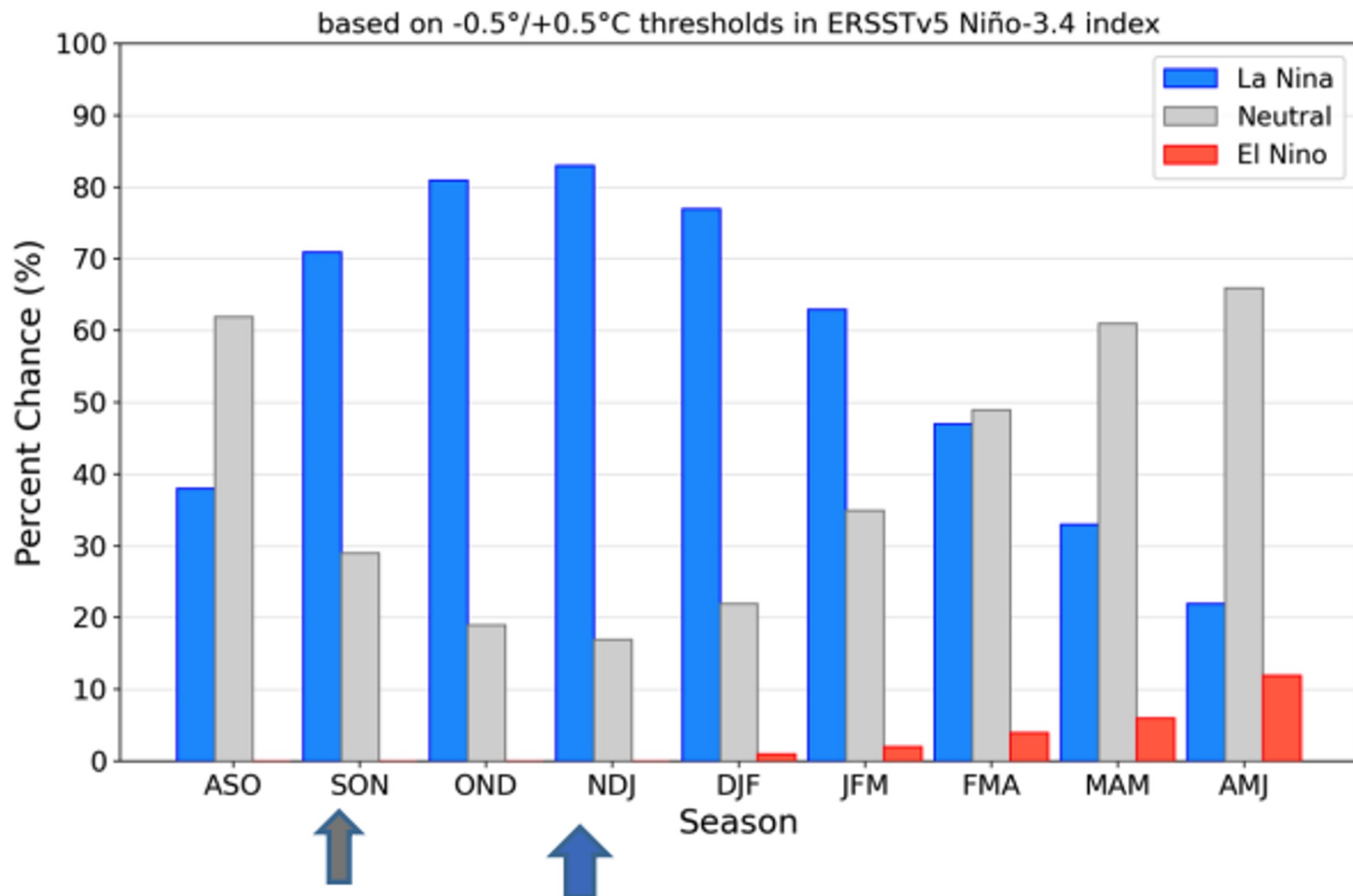
Previsão do “ENSO”



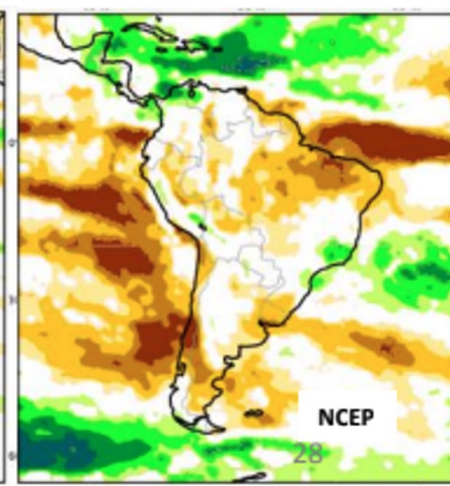
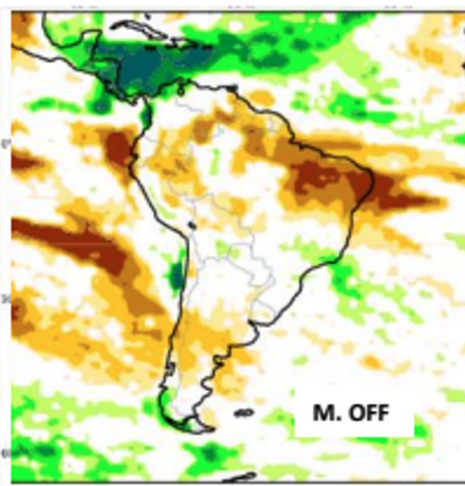
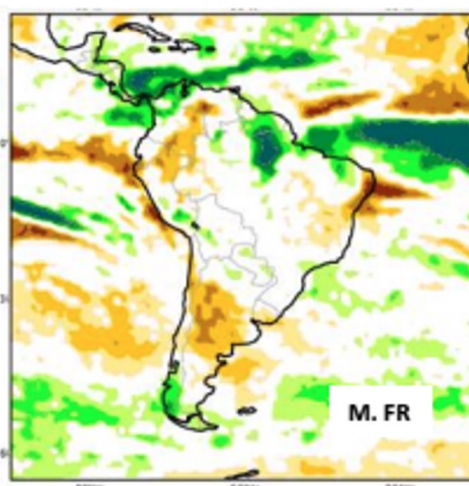
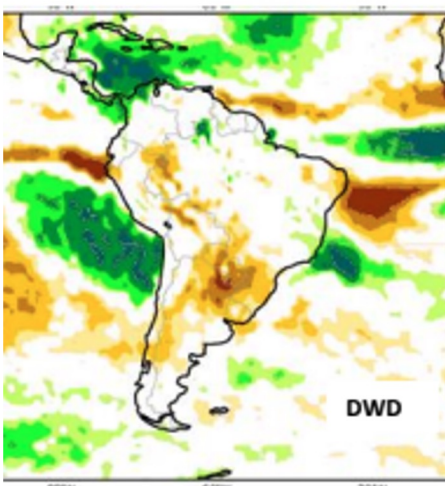
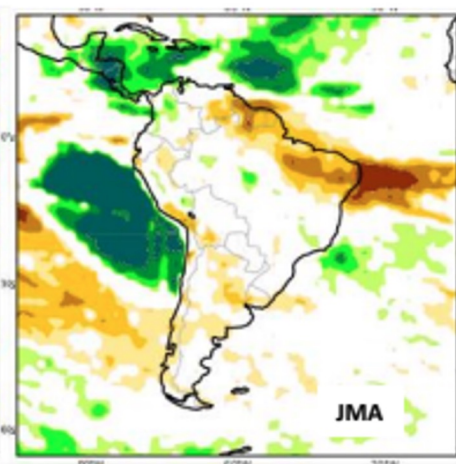
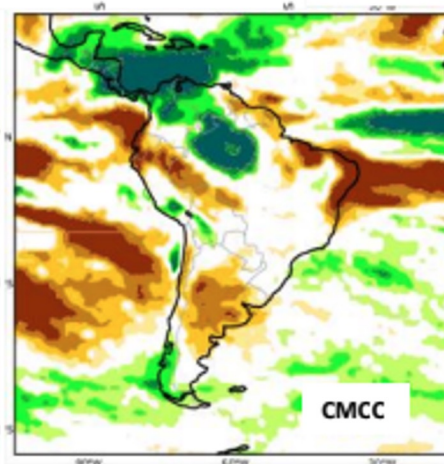
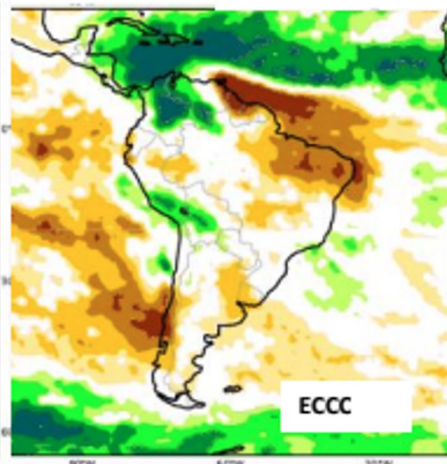
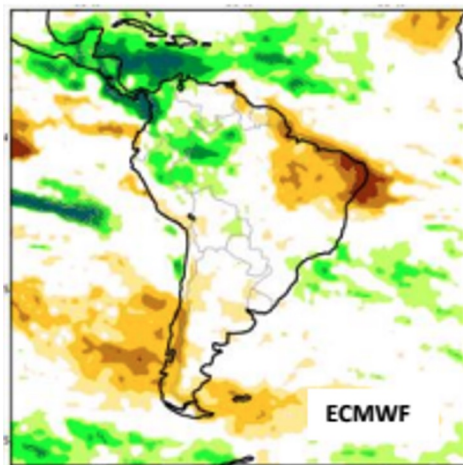
Atualizado 16 de setembro

Previsão do “ENSO”

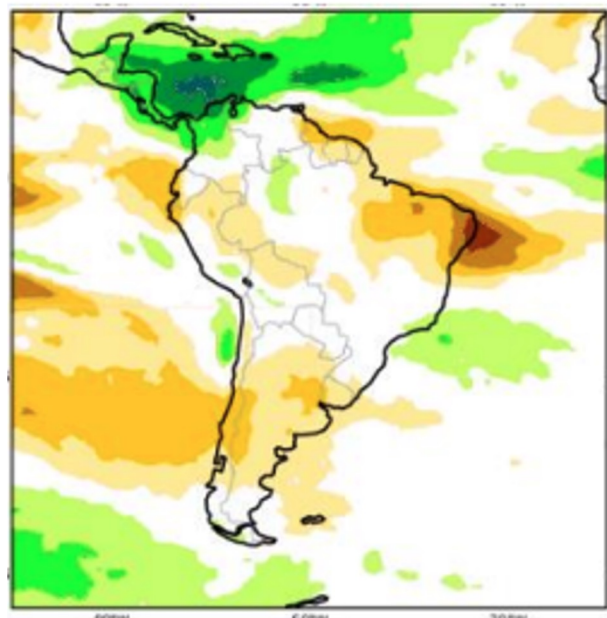
Official NOAA CPC ENSO Probabilities (issued September 2024)



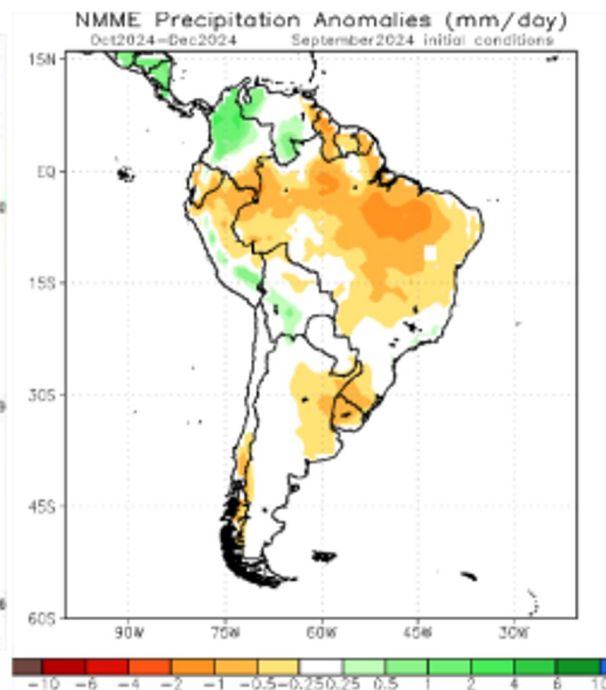
Previsão Sazonal de Chuva OND



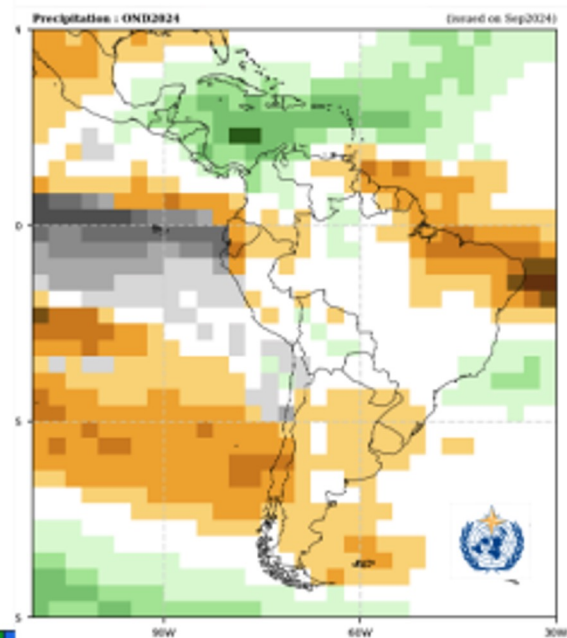
Previsão Sazonal de Chuva Multi-Modelo para OND



Modelos Europeus



Modelos Americanos



Modelos da Organização
Meteorológica Mundial