

# Monitoramento da situação da seca na Região Sul

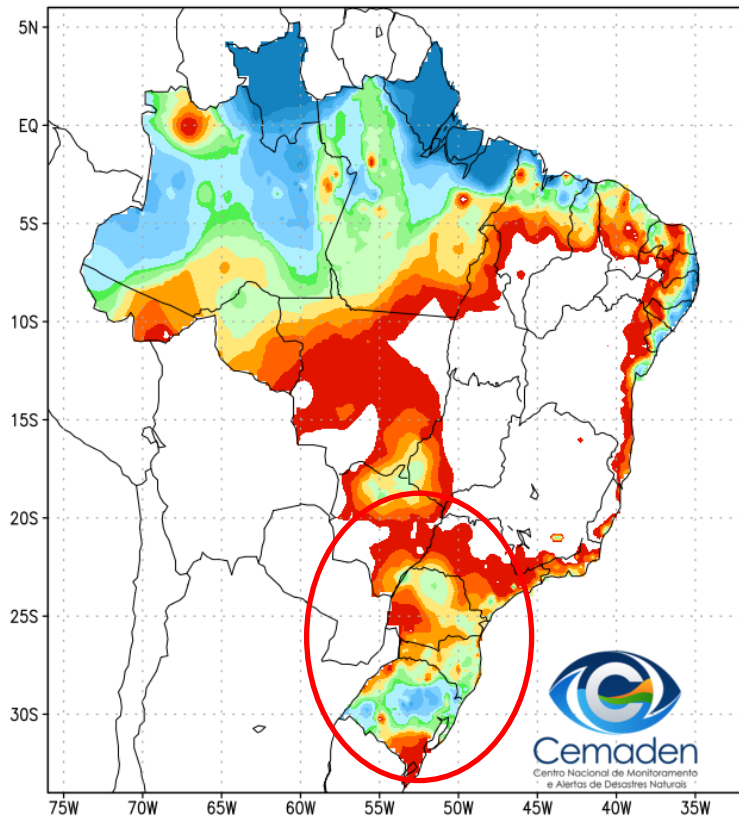


**Cemaden**  
Centro Nacional de Monitoramento  
e Alertas de Desastres Naturais

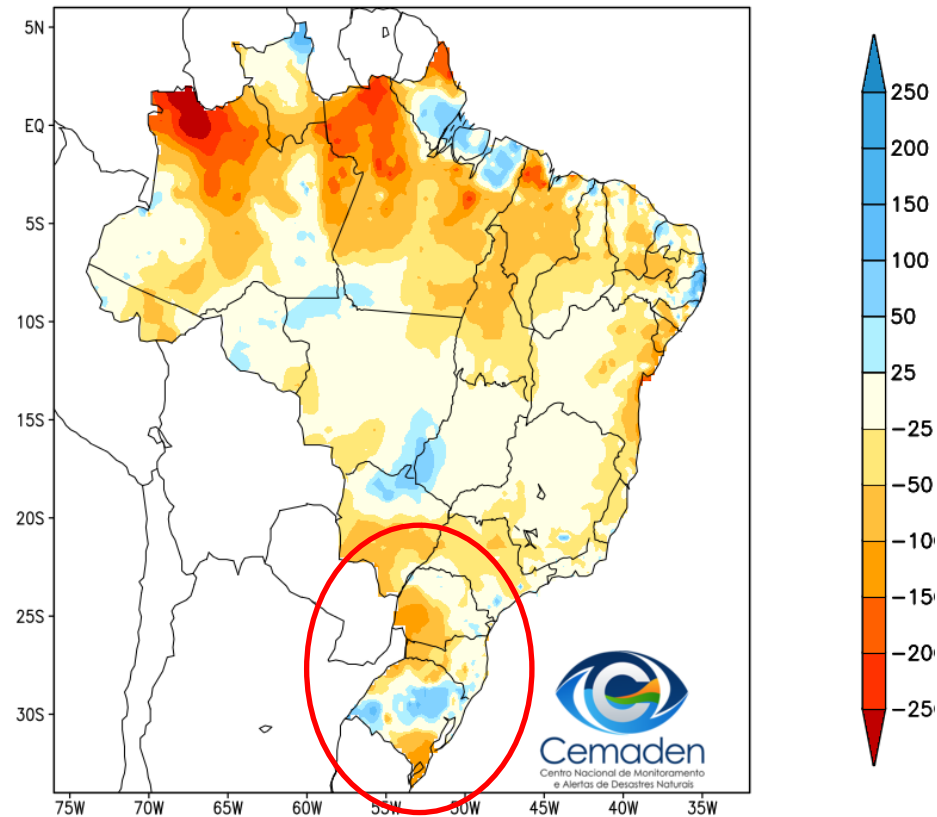
17 de Junho de 2021

# Precipitação – Região Sul: **Maio/21**

Precipitação Acumulada (mm)  
Período: 01/05/2021 a 31/05/2021

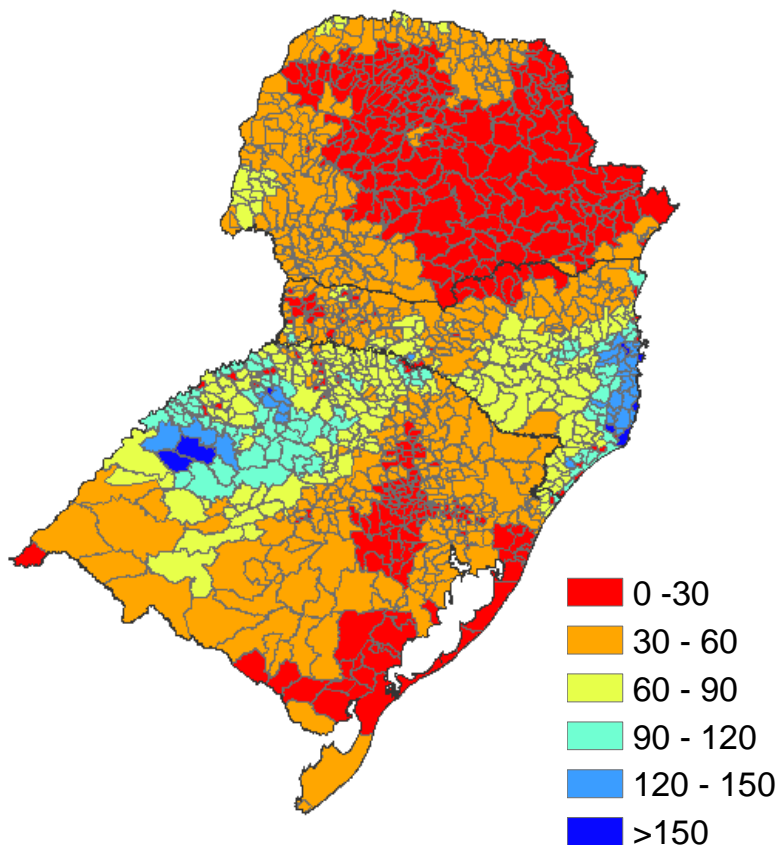


Anomalia de Precipitação (mm)  
Período: 01/05/2021 a 31/05/2021

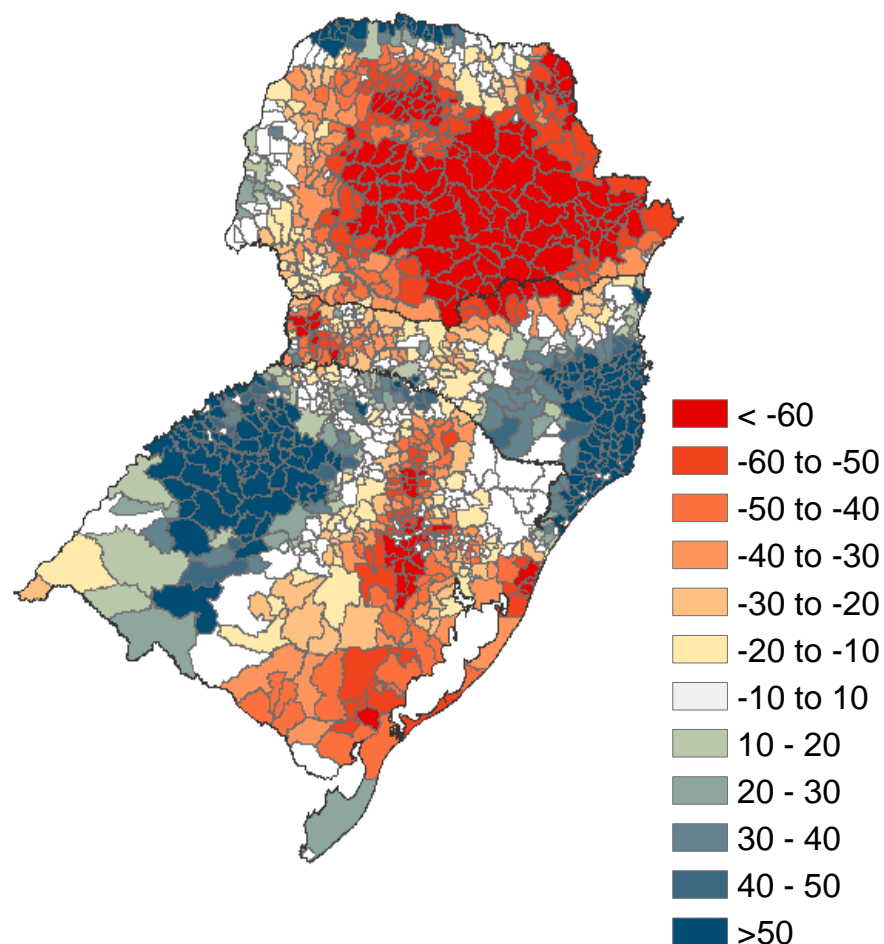


# Precipitação – Região Sul: **junho/2021** (até dia 15/06)

Chuva acumulada (mm)

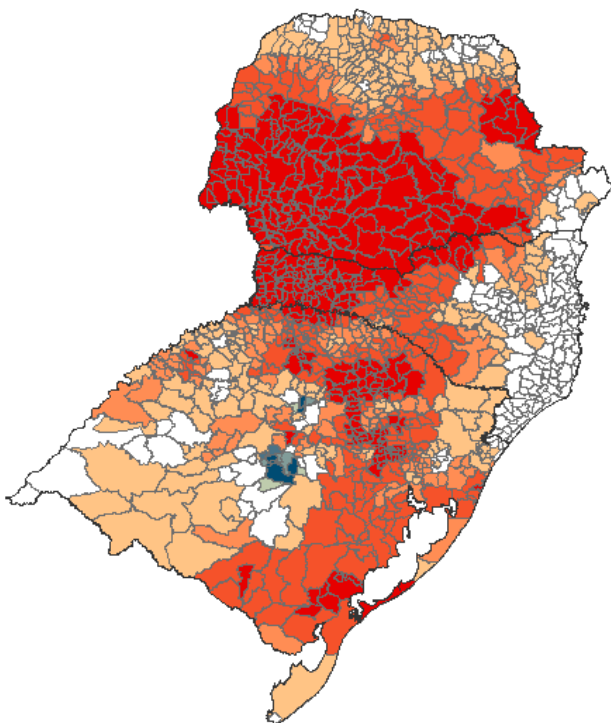


% da média para a primeira quinzena de junho

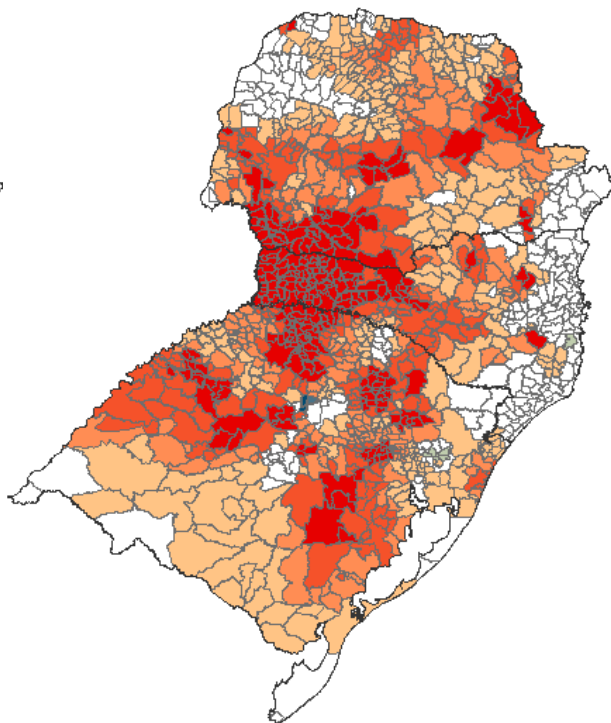


## SPI: Junho de 2021 (até dia 15/06)

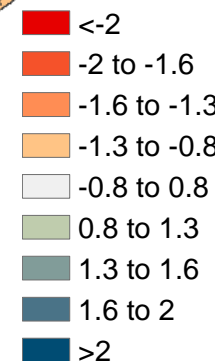
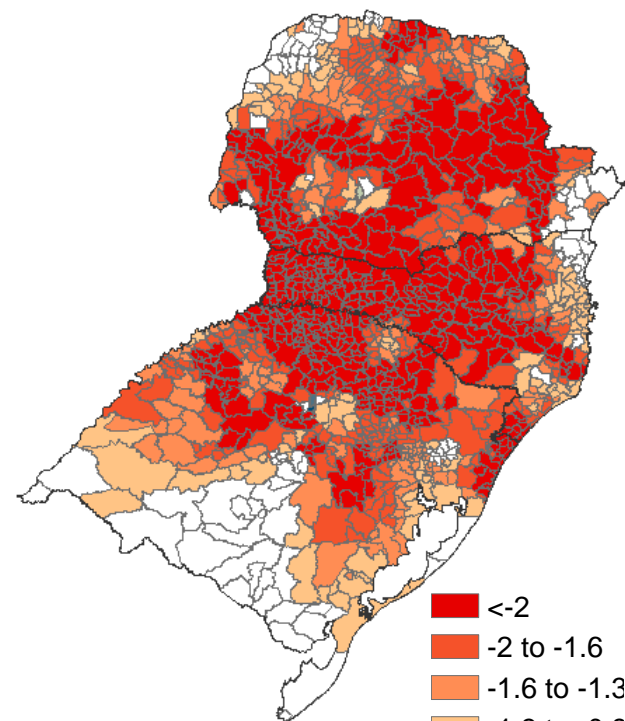
SPI03



SPI12



SPI24

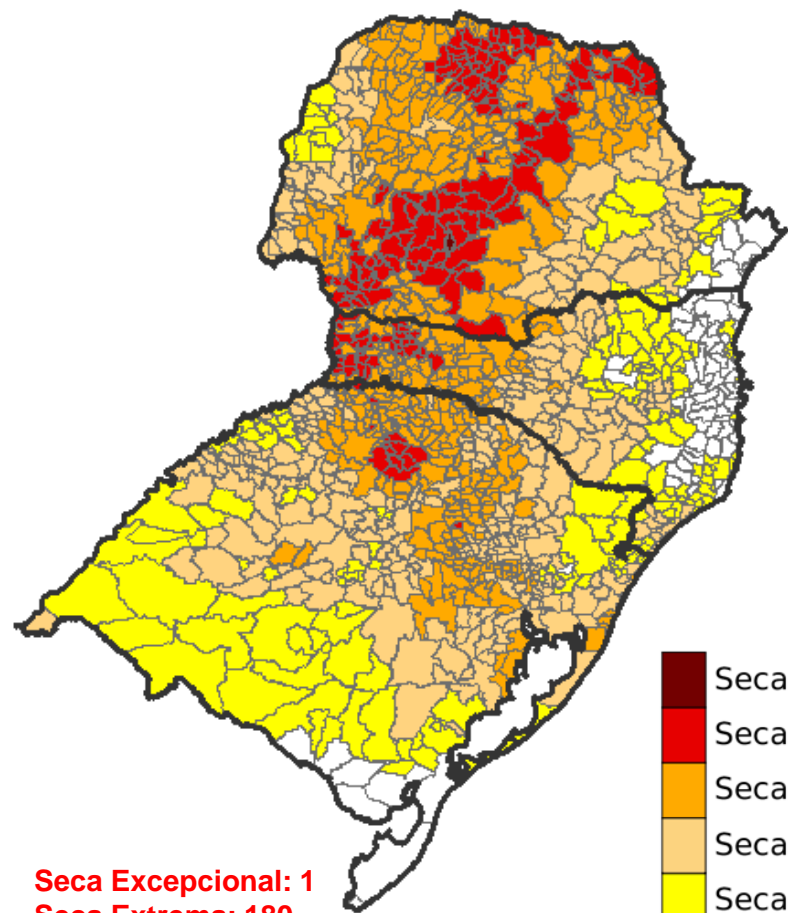




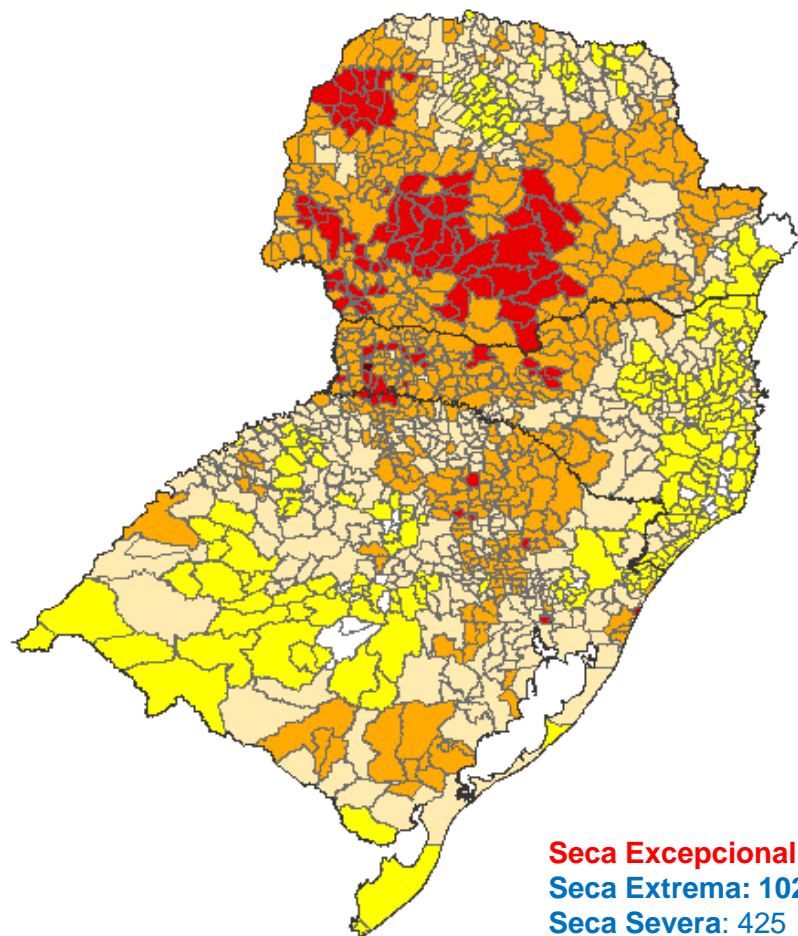
# Índice Integrado de Seca – IIS (**SPI, VHI, Umidade do Solo**)

10 de maio de 2021

15 de junho de 2021

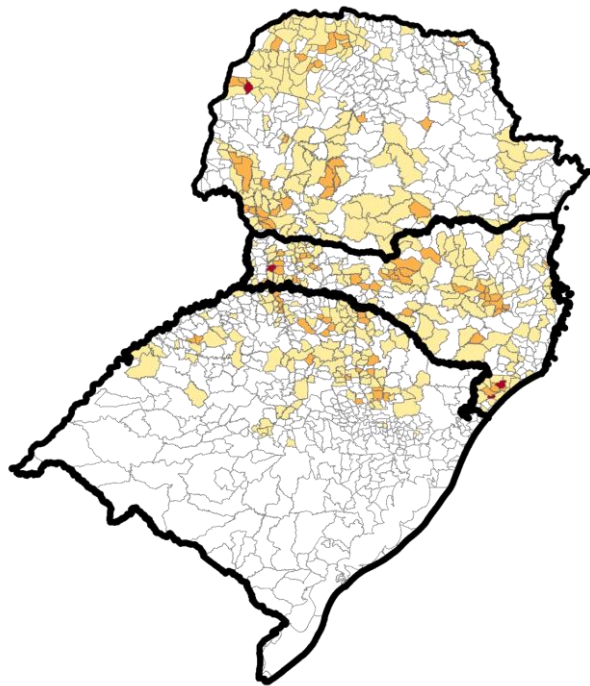


**Seca Excepcional: 1**  
**Seca Extrema: 180**  
**Seca Severa: 433**  
**Seca Moderada: 360**  
**Seca Fraca: 177**



**Seca Excepcional: 2**  
**Seca Extrema: 102**  
**Seca Severa: 425**  
**Seca Moderada: 410**  
**Seca Fraca: 228**

# Áreas Agroprodutivas afetadas pela seca – Região Sul: 10/06



UF	40 a 60%		60 - 80%		> 80%	
	06/mai	10/jun	06/mai	10/jun	06/mai	10/jun
Paraná	69	130	153	30	104	1
Santa Catarina	83	97	72	39	20	3
Rio Grande do Sul	163	105	126	22	34	0

	40 a 60%	60 - 80%	> 80%
<b>Paraná</b>			
Minifundio	85.002 (32%)	17.729 (7%)	926 (*)
Pequena Propriedade	41.764 (33%)	8.058 (6%)	247 (*)
Media Propriedade	8.355 (31%)	1.177 (4%)	37 (*)
<b>Santa Catarina</b>			
Minifundio	87.000 (38%)	28.987 (13%)	3.188 (1%)
Pequena Propriedade	32.049 (39%)	8.248 (10%)	563 (1%)
Media Propriedade	4.210 (42%)	555 (6%)	8 (*)
<b>Rio Grande do Sul</b>			
Minifundio	69.705 (19%)	12.523 (3%)	-
Pequena Propriedade	28.788 (21%)	4.859 (4%)	-
Media Propriedade	3.182 (13%)	245 (1%)	-

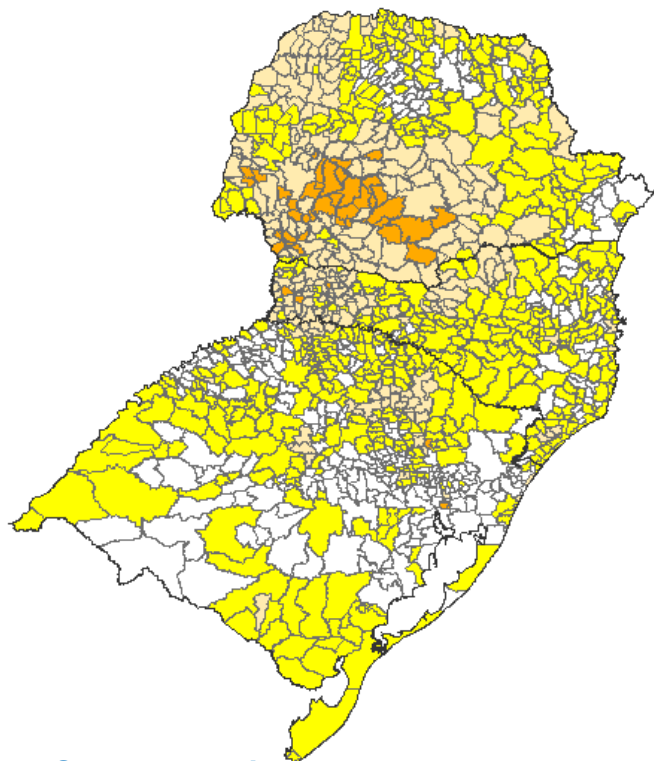
Imóveis Rurais Impactados > 40%
103.657 (40%)
50.069 (39%)
9.569 (36%)
119.175 (52%)
40.860 (50%)
4.773 (48%)
82.228 (22%)
33.647 (24%)
3.427 (14%)

(\*) Porcentagem inferior a 1%.

\*Estimativa a partir dos dados do Cadastro Ambiental Rural para minifúndios, pequenas e médias propriedades e VHI (Satélite)

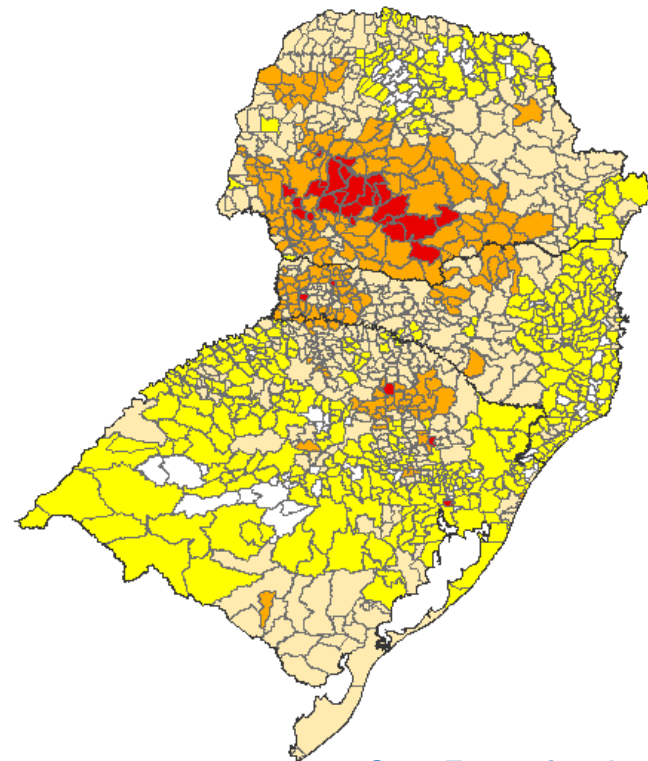
# Cenários IIS: Região Sul: Julho/21

Chuva 30% ACIMA da média



**Seca Excepcional: 0**  
**Seca Extrema: 11**  
**Seca Severa: 107**  
**Seca Moderada: 440**  
**Seca Fraca: 399**

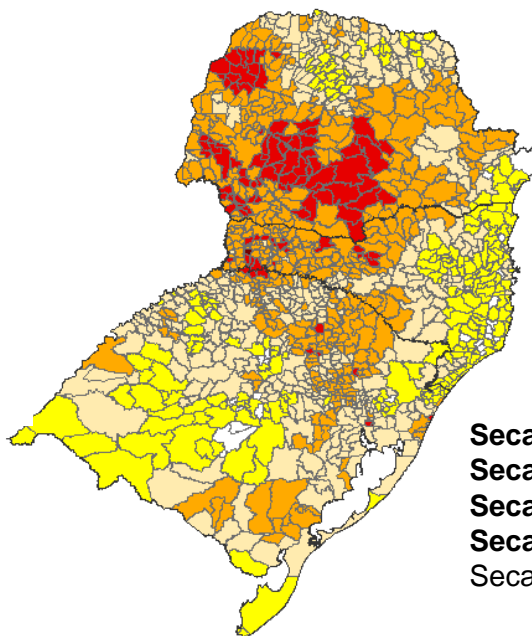
Chuva 30% ABAIXO da média



**Seca Excepcional: 0**  
**Seca Extrema: 32**  
**Seca Severa: 201**  
**Seca Moderada: 444**  
**Seca Fraca: 444**



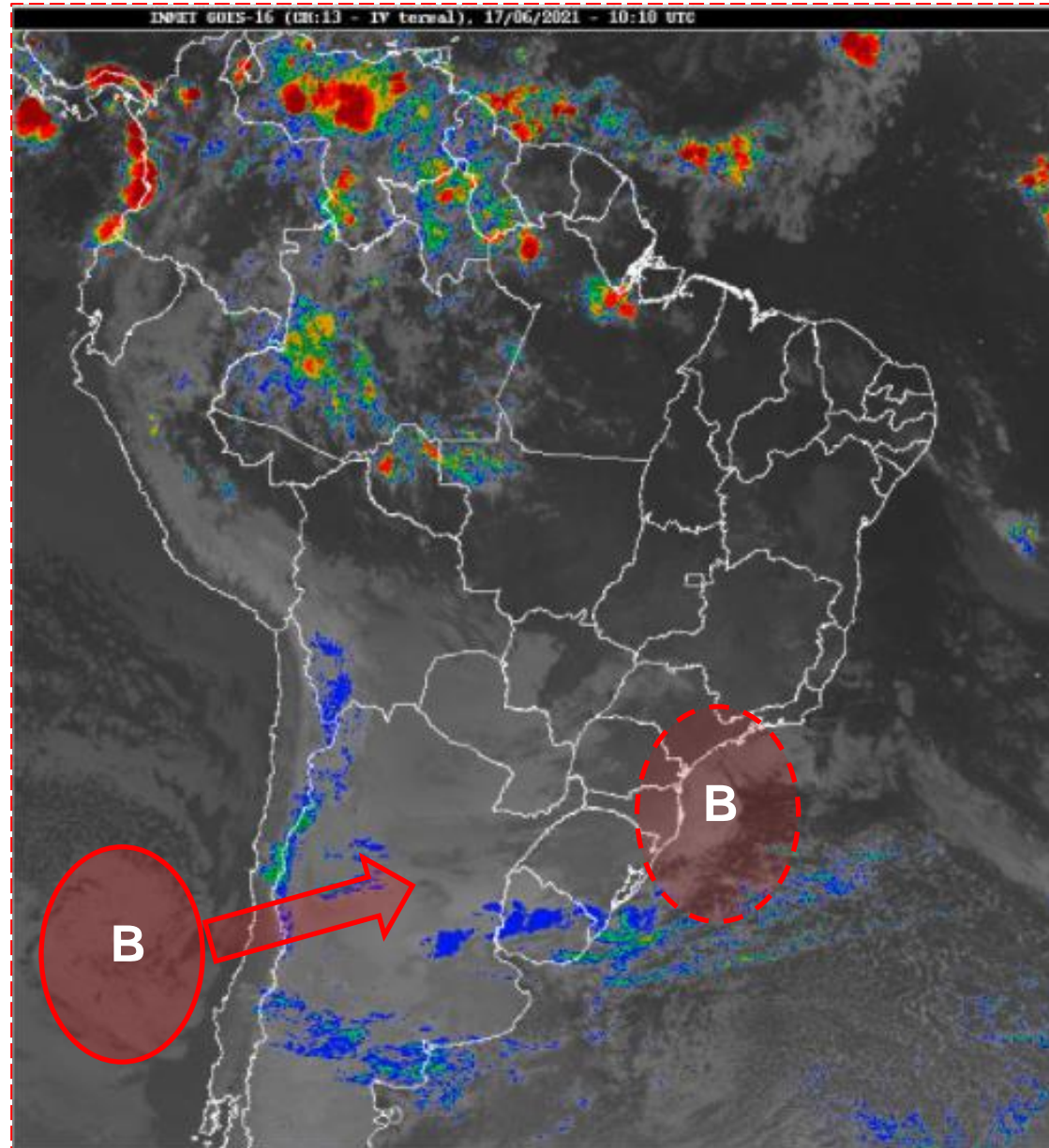
IIS observado (15 de junho)



**Seca Excepcional: 2**  
**Seca Extrema: 102**  
**Seca Severa: 425**  
**Seca Moderada: 410**  
**Seca Fraca: 228**



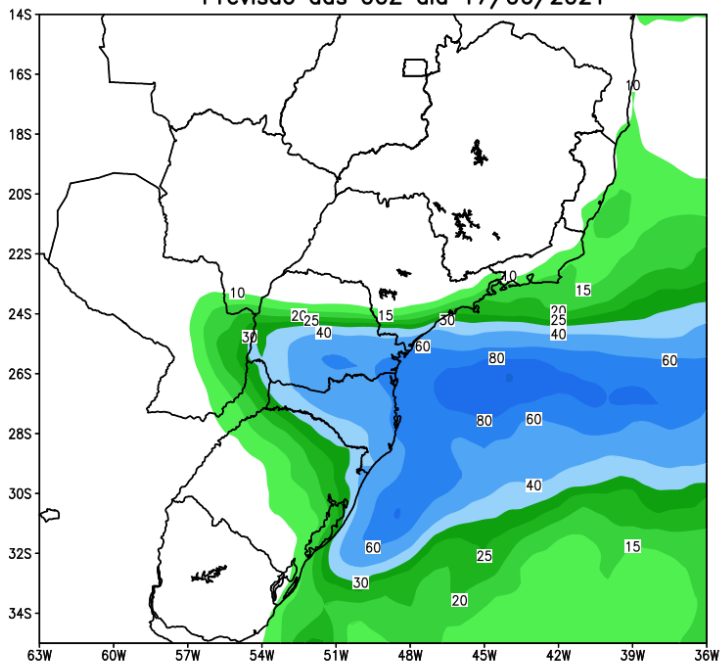
# Situação meteorológica atual



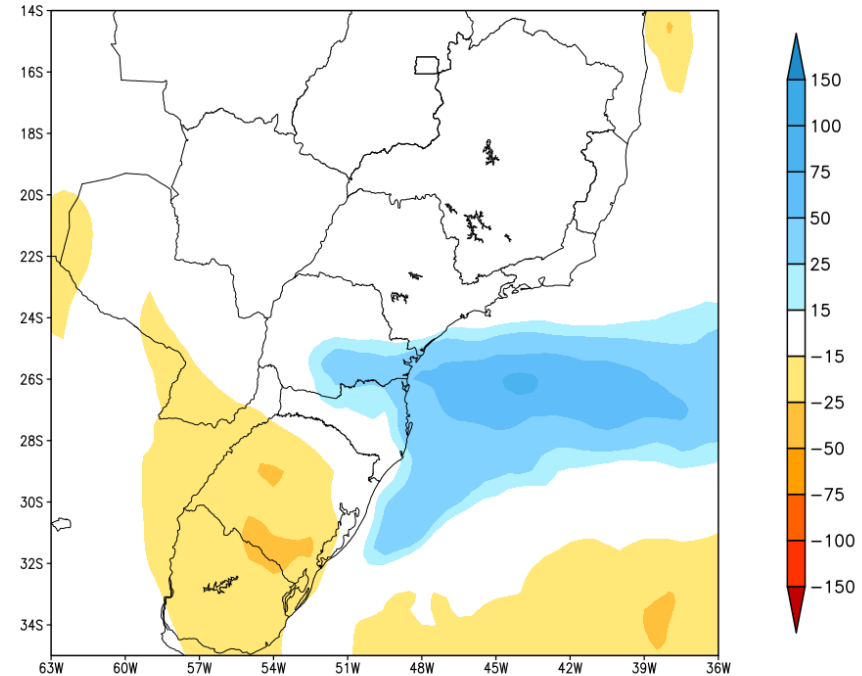


# Previsão de chuva próximos 7 dias

GEFS / BRASIL\_SUL  
Precipitacao acumulada 1aSem (mm)  
Previsao das 00Z dia 17/06/2021



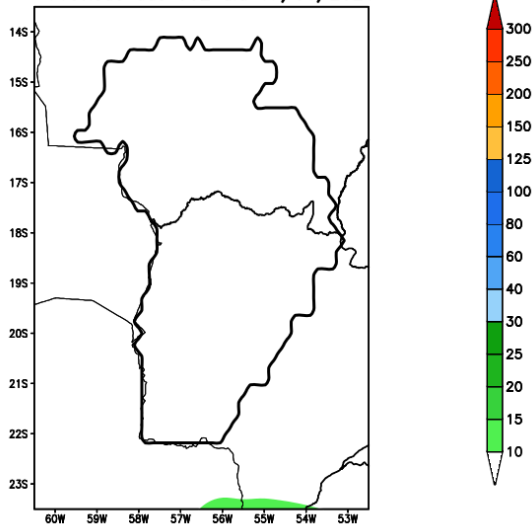
Anomalia de Precipitacao BR\_SUL (mm)  
Periodo: 2021061700 a 2021062400



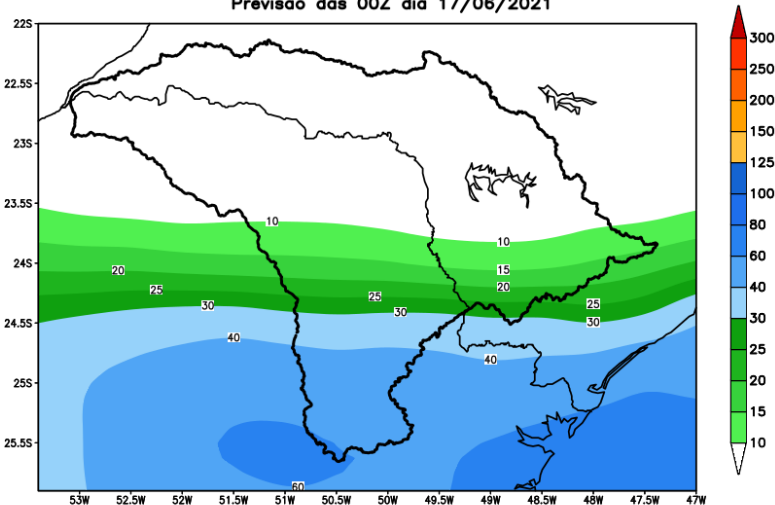
MODELO GFS

# Previsão para as principais bacias

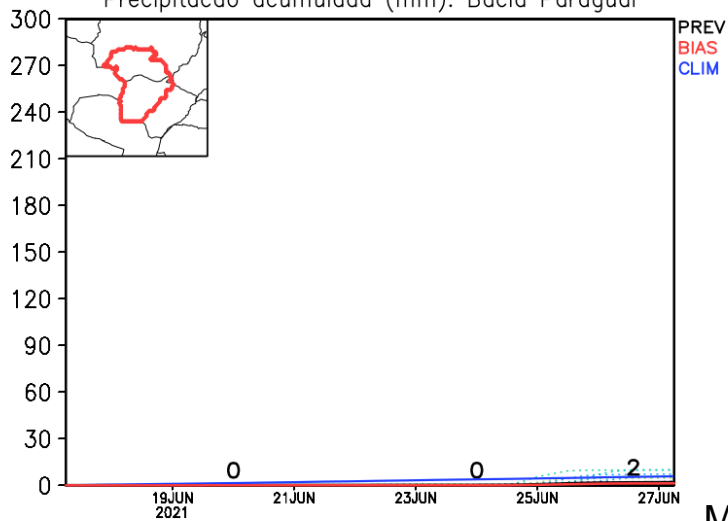
GEFS / Bacia do Rio Paraguai  
Precipitação acumulada em 7 dias (mm)  
Previsão das 00Z dia 17/06/2021



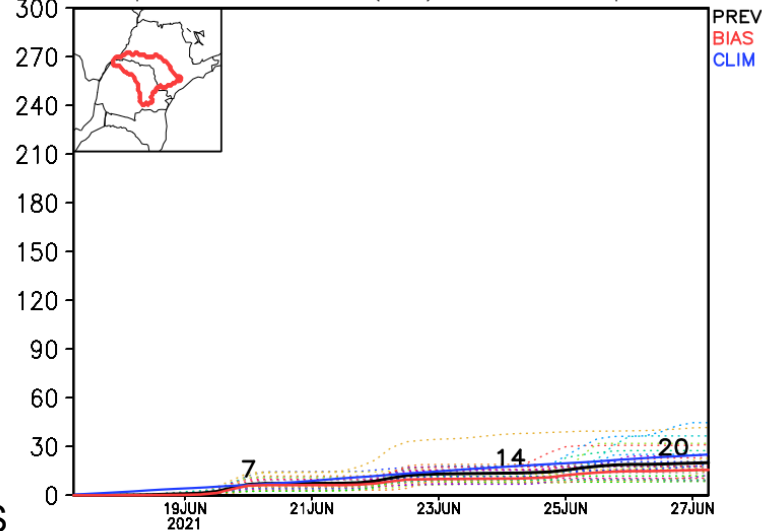
GEFS / Bacia do Rio Paranapanema  
Precipitação acumulada em 7 dias (mm)  
Previsão das 00Z dia 17/06/2021



Precipitação acumulada (mm): Bacia Paraguai



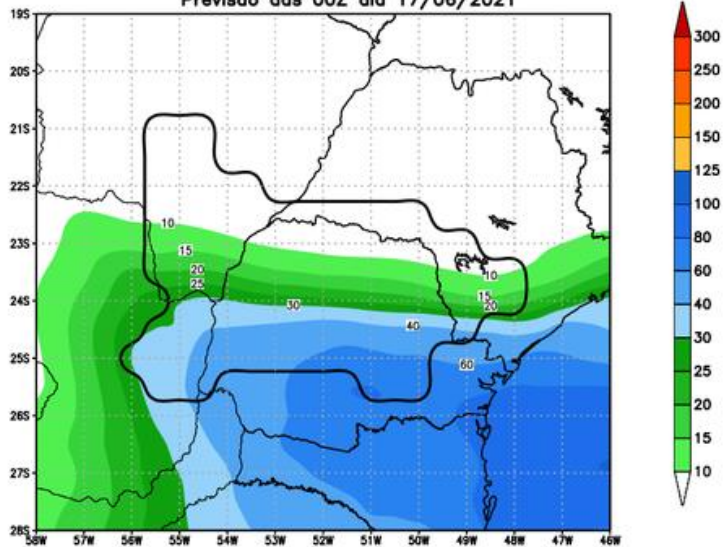
Precipitação acumulada (mm): Bacia Paranapanema



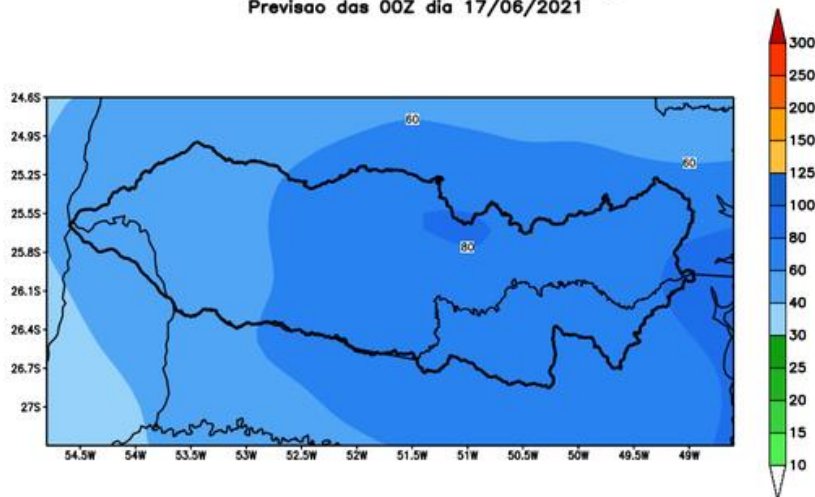
MODELO GFS

# Previsão para as principais bacias

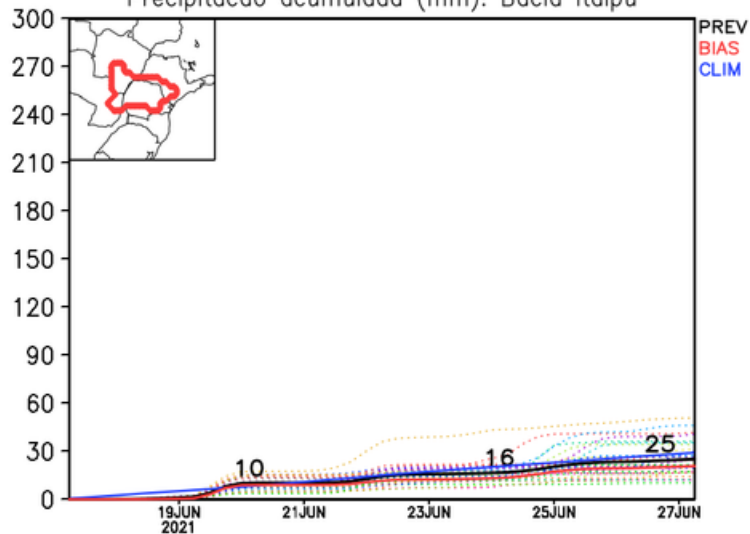
GEFS / Itaipu  
Precipitacao acumulada em 10 dias (mm)  
Previsao das 00Z dia 17/06/2021



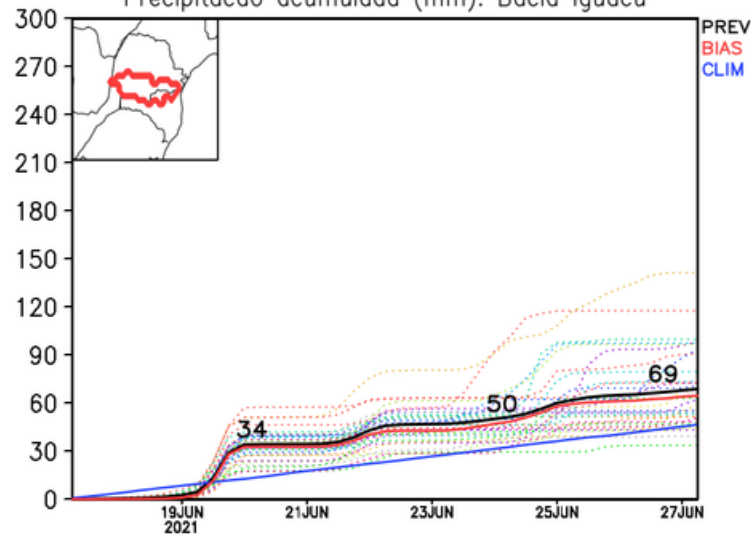
GEFS / Bacia do Rio Iguacu  
Precipitacao acumulada em 10 dias (mm)  
Previsao das 00Z dia 17/06/2021



Precipitacao acumulada (mm): Bacia Itaipu

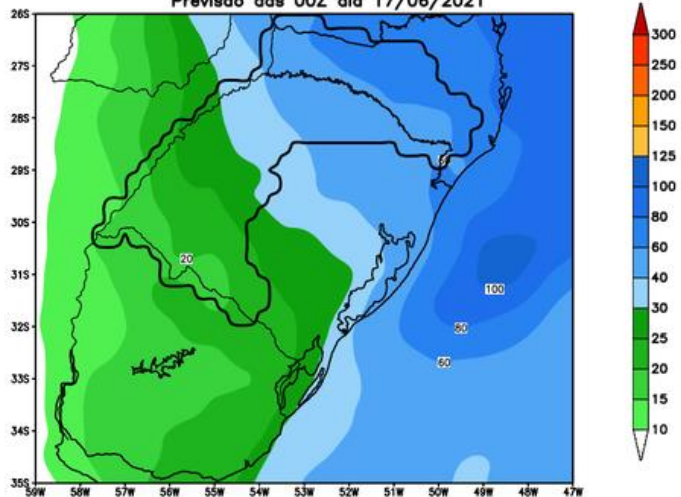


Precipitacao acumulada (mm): Bacia Iguacu

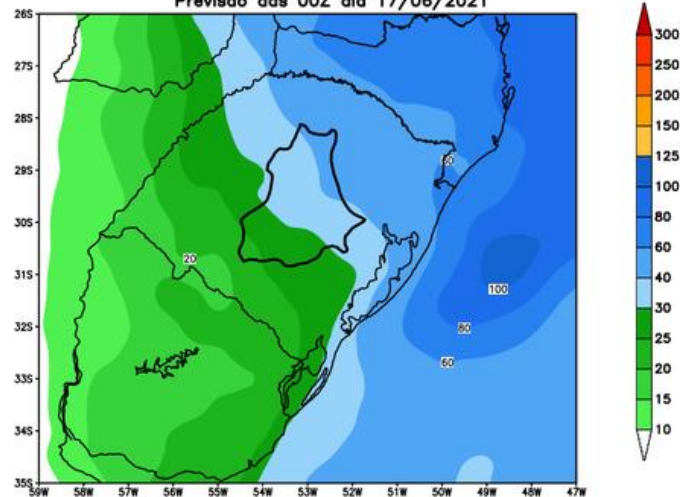


# Previsão para as principais bacias

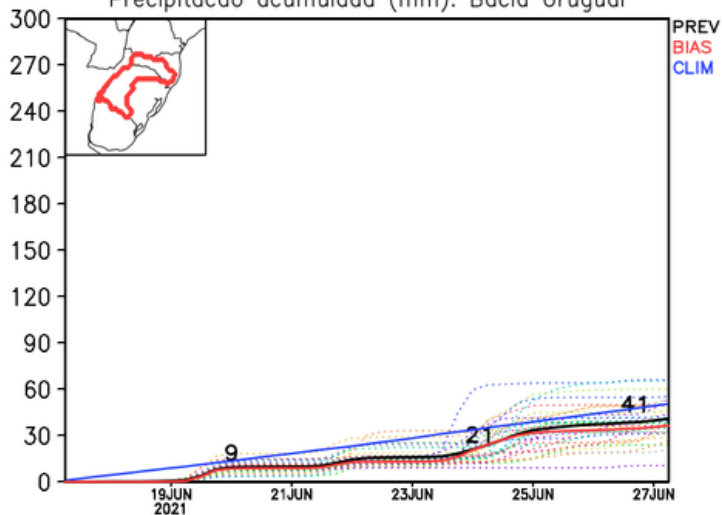
GEFS / Bacia do Rio Uruguai  
Precipitacao acumulada em 10 dias (mm)  
Previsao das 00Z dia 17/06/2021



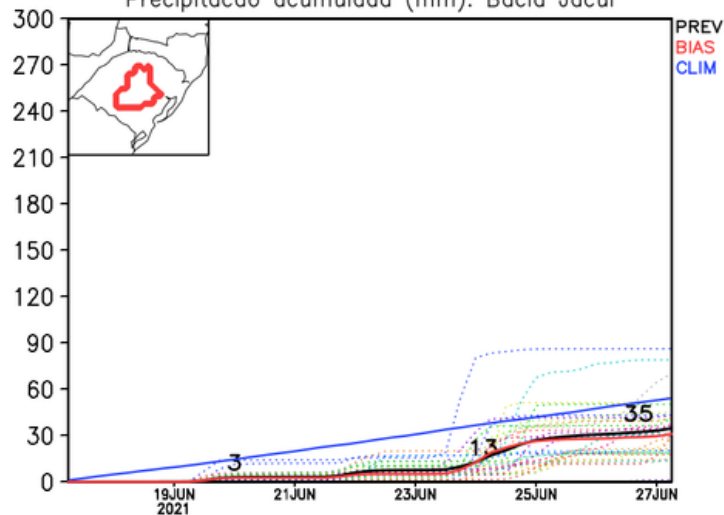
GEFS / Bacia do Rio Jacui  
Precipitacao acumulada em 10 dias (mm)  
Previsao das 00Z dia 17/06/2021



Precipitacao acumulada (mm): Bacia Uruguai



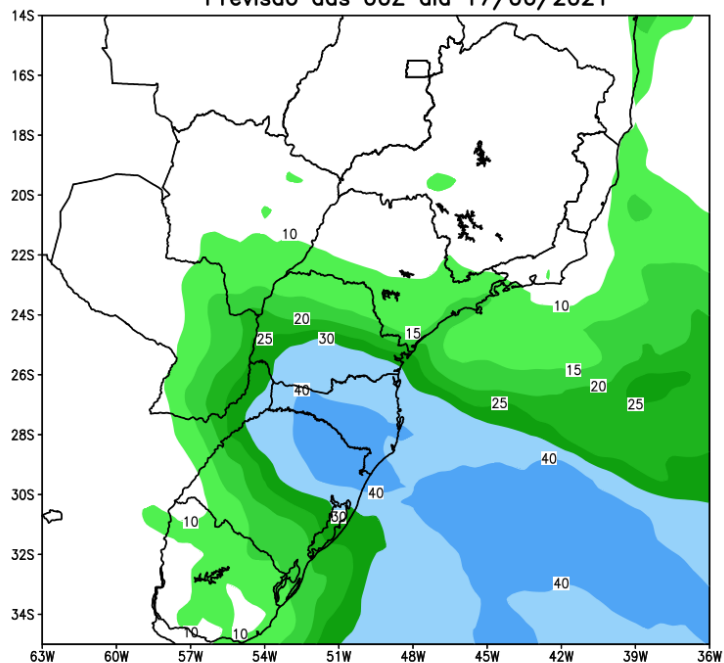
Precipitacao acumulada (mm): Bacia Jacui



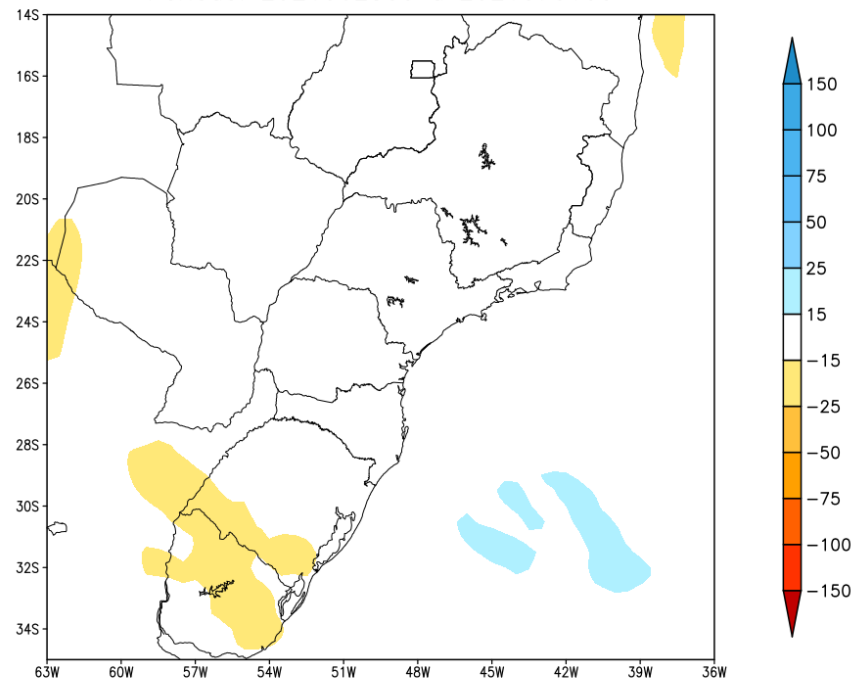


# Tendência para a segunda semana

GEFS / BRASIL\_SUL  
Precipitação acumulada 2aSem (mm)  
Previsão das 00Z dia 17/06/2021



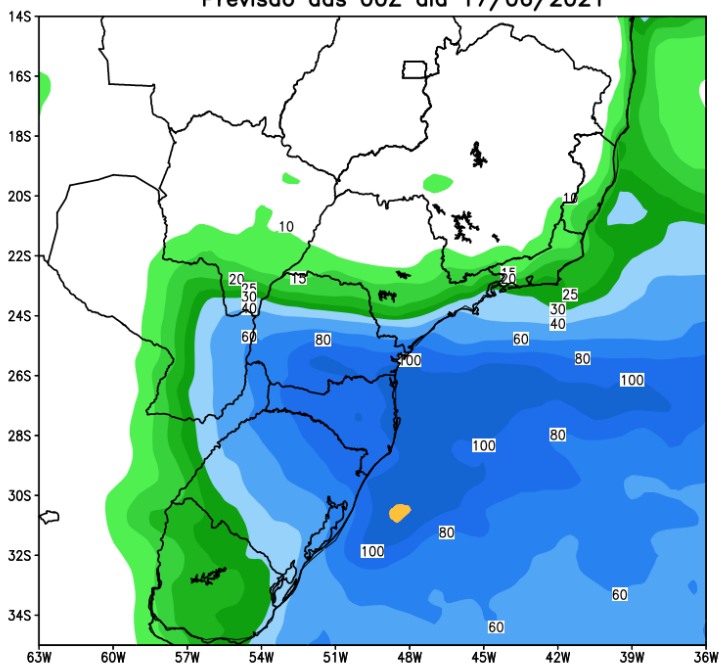
Anomalia de Precipitação BR\_SUL (mm)  
Período: 2021062500 a 2021070100



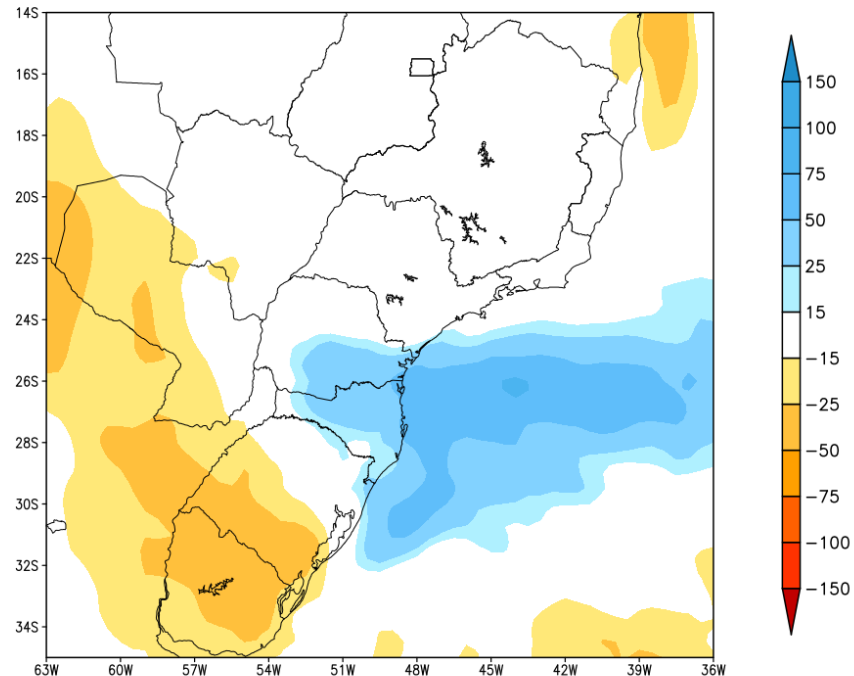
MODELO GFS

# Tendência para as duas próximas semanas

GEFS / BRASIL\_SUL  
Precipitação acumulada 14 dias (mm)  
Previsão das 00Z dia 17/06/2021

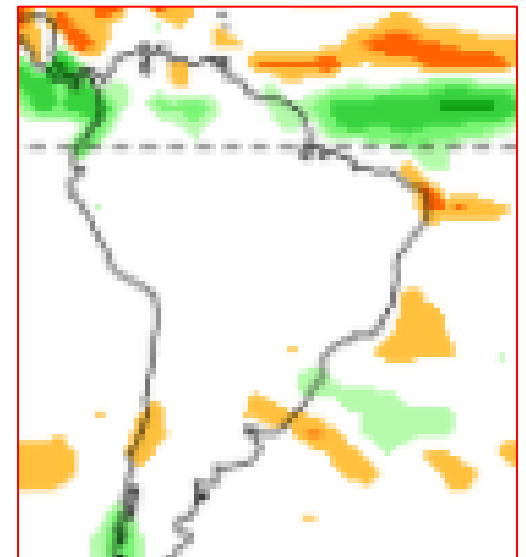
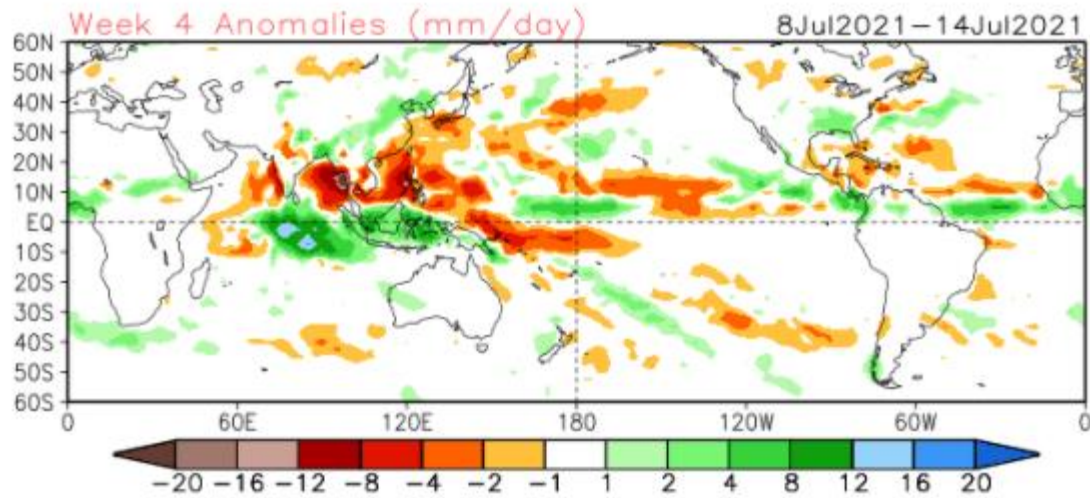
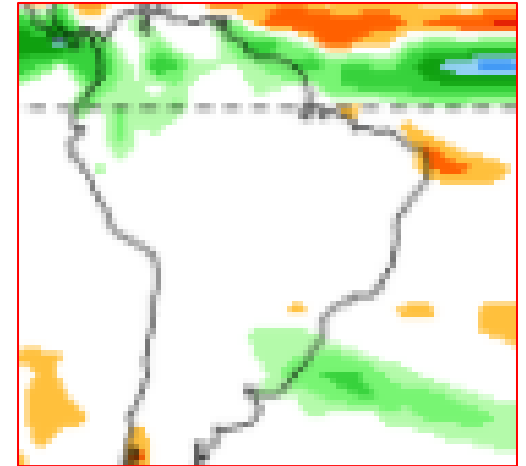
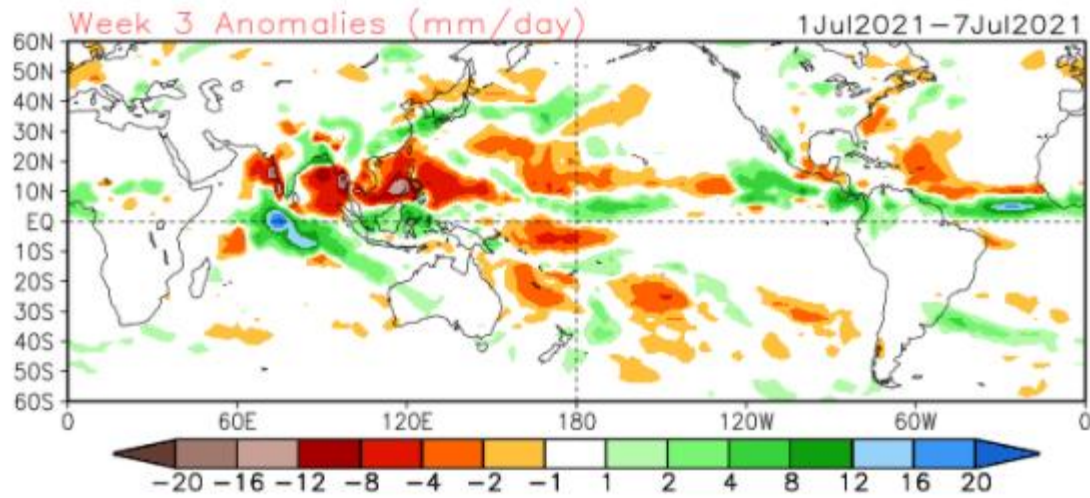


Anomalia de Precipitação BR\_SUL (mm)  
Período: 2021061700 a 2021070100



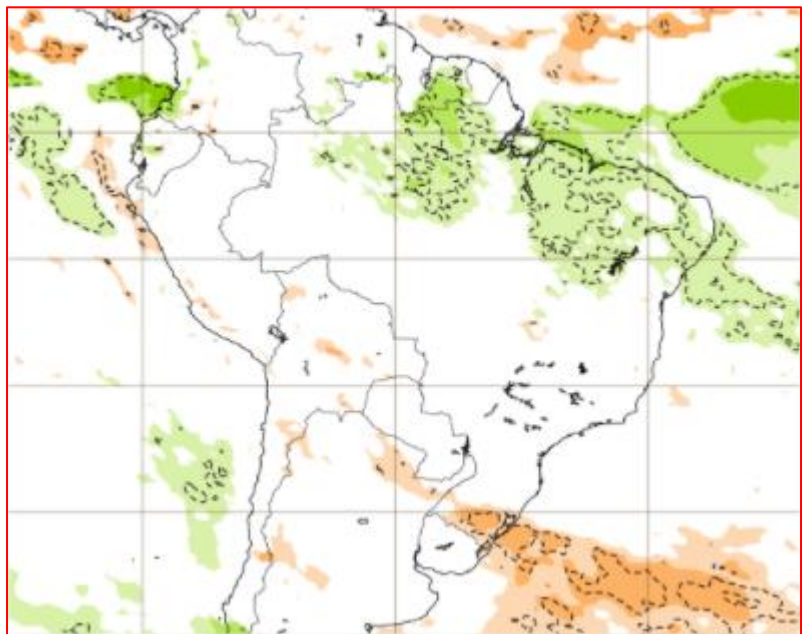
MODELO GFS

# Tendência 3a e 4a semanas

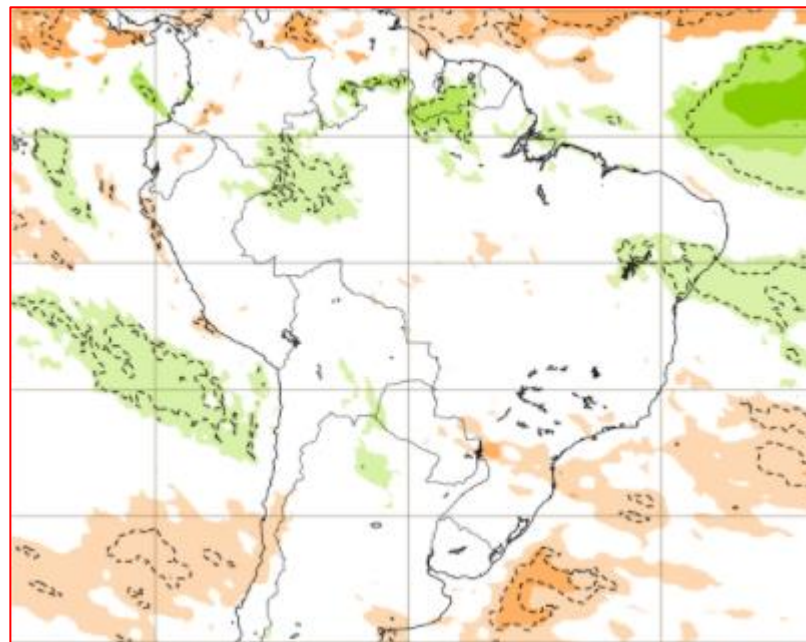


# Tendência para 3ª e 4ª semanas

28/06-05/07



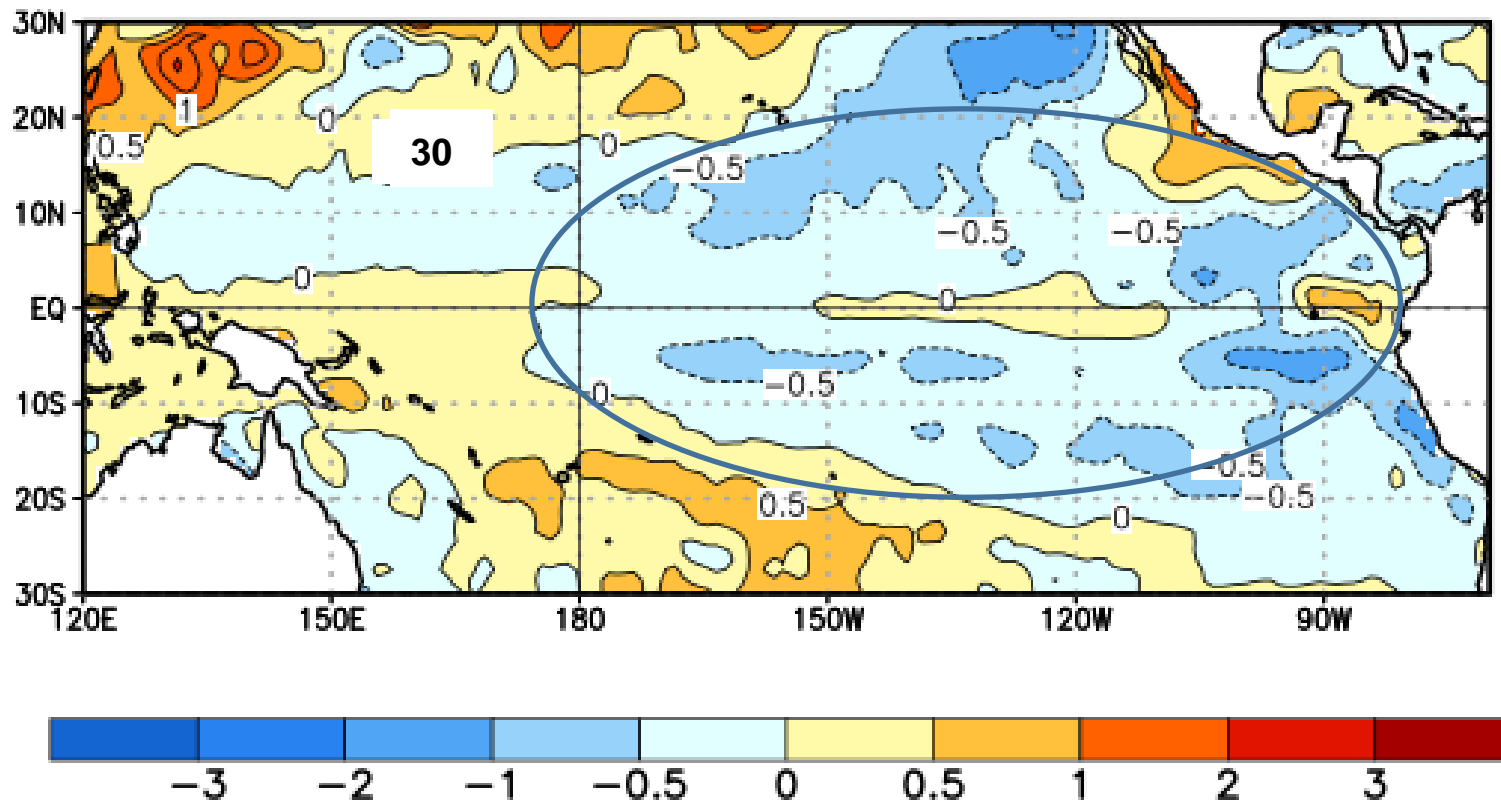
05-12/07





# Situação da Temperatura do Oceano Pacífico

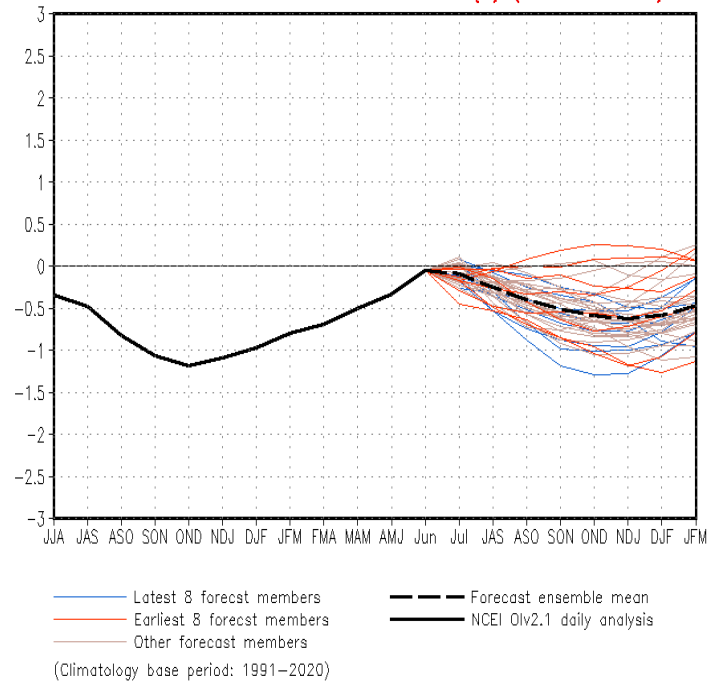
Average SST Anomalies  
16 MAY 2021 – 12 JUN 2021



Situação de neutralidade desde maio

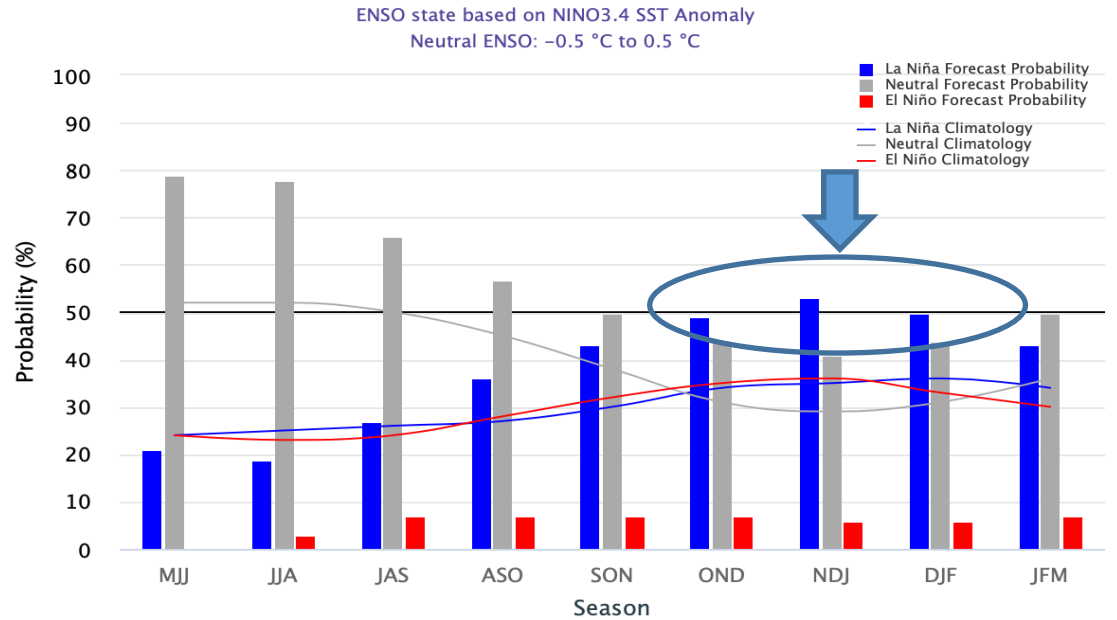
# Previsão da temperatura do Oceano Pacífico

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



FONTES: NOAA

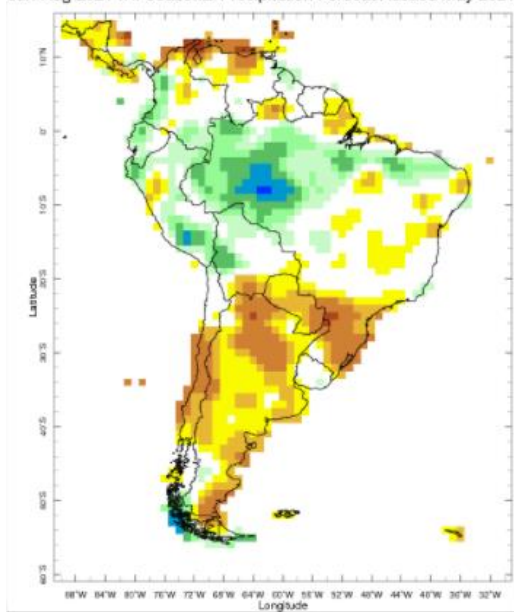
Early-June 2021 CPC/IRI Official Probabilistic ENSO Forecasts



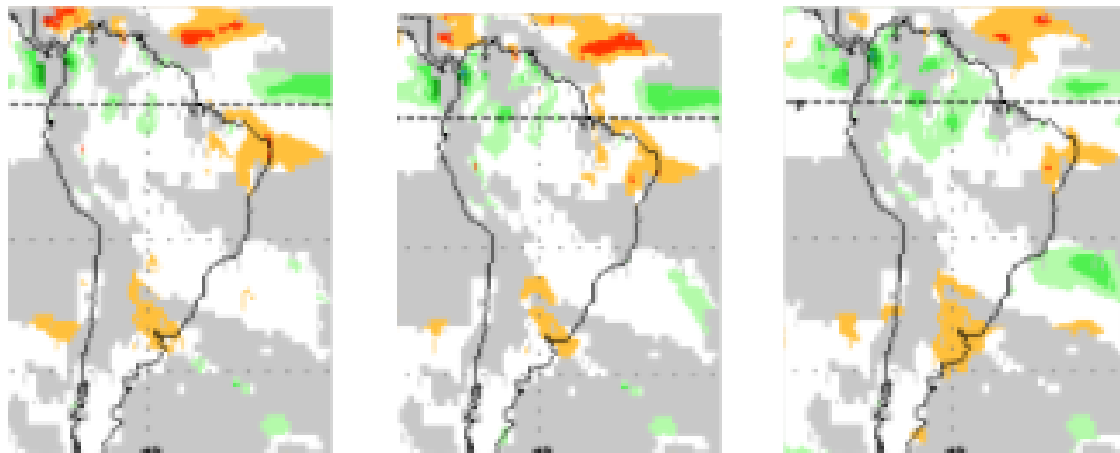
FONTES: IRI

# Previsão Sazonal de chuva (JJA)

Jun-Aug 2021 IRI Seasonal Precipitation Forecast issued May 2021



CFS/NOAA



ECMWF Seasonal Forecast

Prob(most likely category of precipitation)

Forecast start is 01/05/21, climate period is 1993-2016

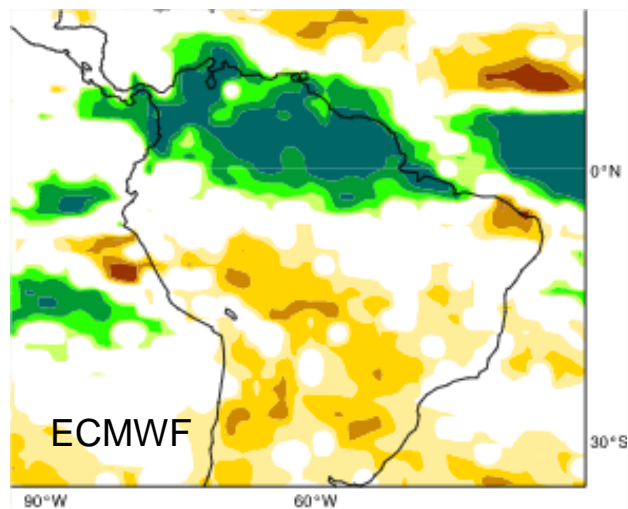
Ensemble size = 51, climate size = 600

System 5

JJA 2021

← Prob(below lower tercile)      Prob(above upper tercile) →

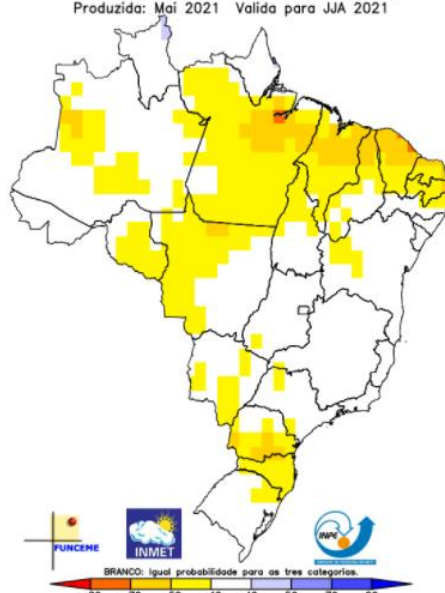
70-100% 60-70% 50-60% 40-50% other 40-50% 50-60% 60-70% 70-100%



Multi-modelo CPTEC/INMET/FUNCEME

Probab. tercil mais provavel: Precip. (%)

Produzida: Mai 2021 Valida para JJA 2021



NMME Precipitation Anomalies (mm/day)

Jul2021-Sep2021

June2021 initial conditions

