

Global Heat Hazards Outlooks

Date of Issuance: 14 Jan 2025

Week-1 Valid: 15 Jan 2025 – 21 Jan 2025

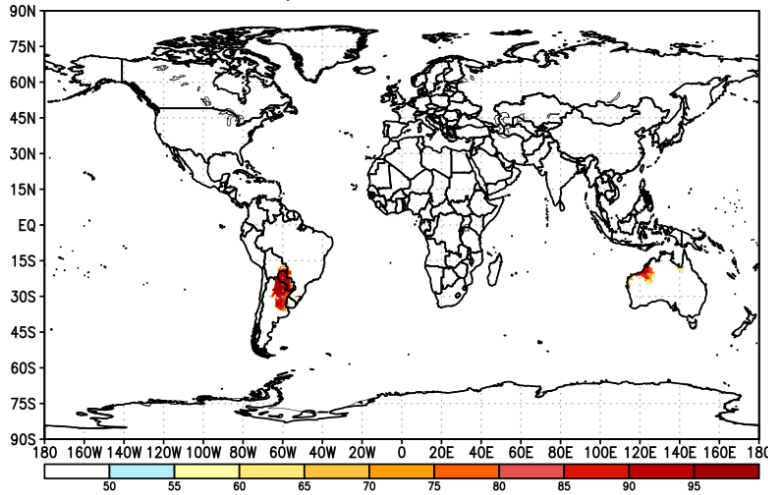
Week-2 Valid: 22 Jan 2025 – 28 Jan 2025

Numerical Weather Prediction Model: NCEP GEFS

GEFS Week-1 HI/Tmax Hybrid POE with Respect to Fixed Thresholds

>41°C & > 3 Consc. Days

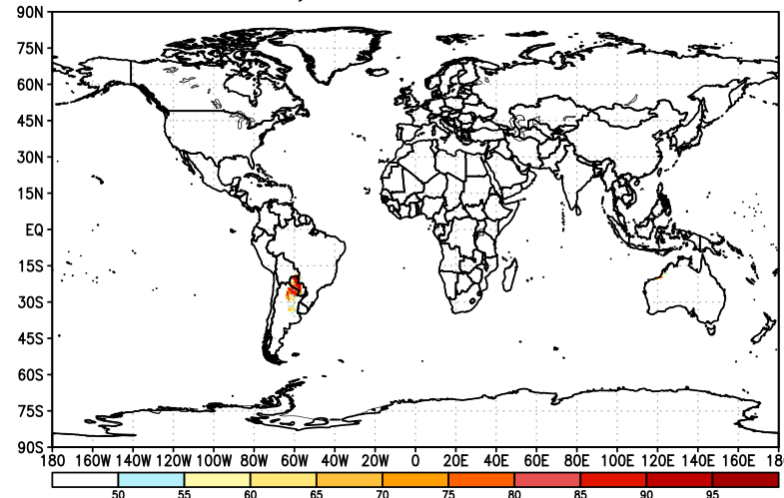
GEFS Week-1 POE Tmax/HI Hybrid > 41 Celc.
> 3 Cons. days, Valid: 15Jan2025 - 21Jan2025



https://ftp.cpc.ncep.noaa.gov/International/global_hett/gefs_week1_prob_hybrid_3_glb_41.png

>43°C & > 3 Consc. Days

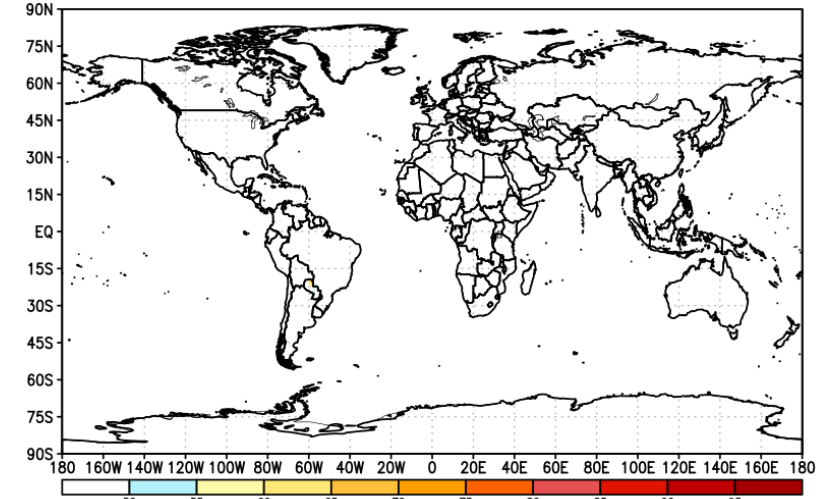
GEFS Week-1 POE Tmax/HI Hybrid > 43 Celc.
> 3 Cons. days, Valid: 15Jan2025 - 21Jan2025



https://ftp.cpc.ncep.noaa.gov/International/global_hett/gefs_week1_prob_hybrid_3_glb_43.png

>45°C & > 3 Consc. Days

GEFS Week-1 POE Tmax/HI Hybrid > 45 Celc.
> 3 Cons. days, Valid: 15Jan2025 - 21Jan2025



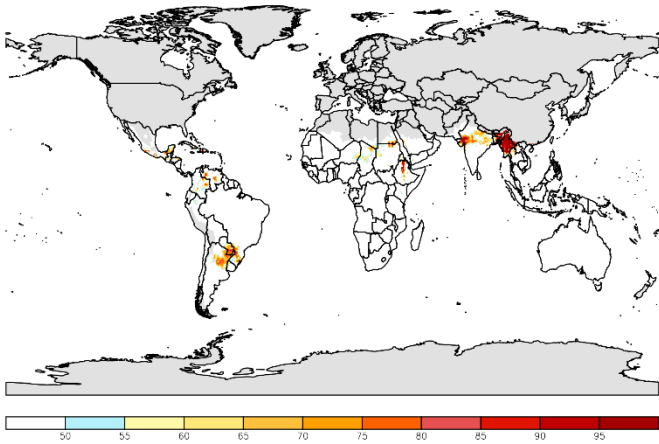
https://ftp.cpc.ncep.noaa.gov/International/global_hett/gefs_week1_prob_hybrid_3_glb_45.png

- There is an increased chance for the hybrid index to exceed 41°C for at least three consecutive days in many parts of Paraguay, some parts of northeastern Argentina, southeastern Bolivia and western Uruguay, and some parts of western Australia.

GEFS Week-1 POE, Tmax/HI with Calmer Wind (< 5m s-1) and less Cloud Cover (< 50%)

>80th & > 3 Consc. Days

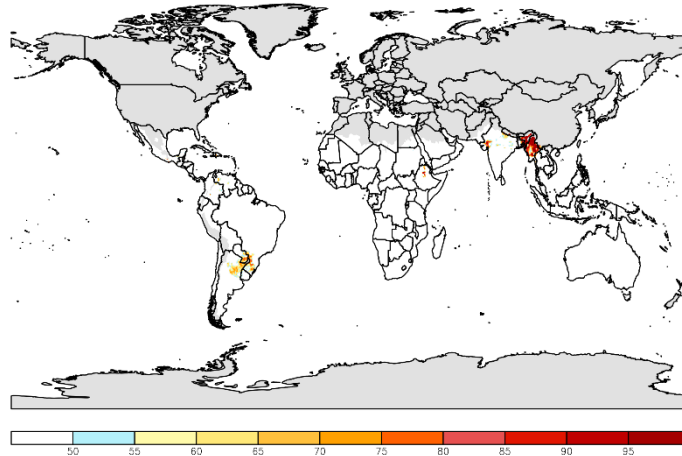
GEFS Week-1 POE Tmax/HI > 80th Pctle. with W. Speed < 5m/sec &
Cloud C. < 50%, > 3 Cons. days, Valid: 15Jan2025 – 21Jan2025



https://ftp.cpc.ncep.noaa.gov/International/extreme_fc/st/gefs_heat/gefs_comb3_week1_glb_prob_80.gif

>90th & > 3 Consc. Days

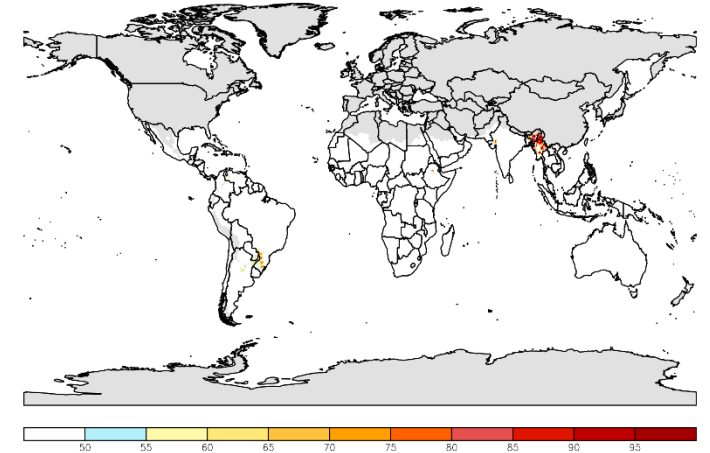
GEFS Week-1 POE Tmax/HI > 90th Pctle. with W. Speed < 5m/sec &
Cloud C. < 50%, > 3 Cons. days, Valid: 15Jan2025 – 21Jan2025



https://ftp.cpc.ncep.noaa.gov/International/extreme_fc/st/gefs_heat/gefs_comb3_week1_glb_prob_90.gif

>95th & > 3 Consc. Days

GEFS Week-1 POE Tmax/HI > 95th Pctle. with W. Speed < 5m/sec &
Cloud C. < 50%, > 3 Cons. days, Valid: 15Jan2025 – 21Jan2025



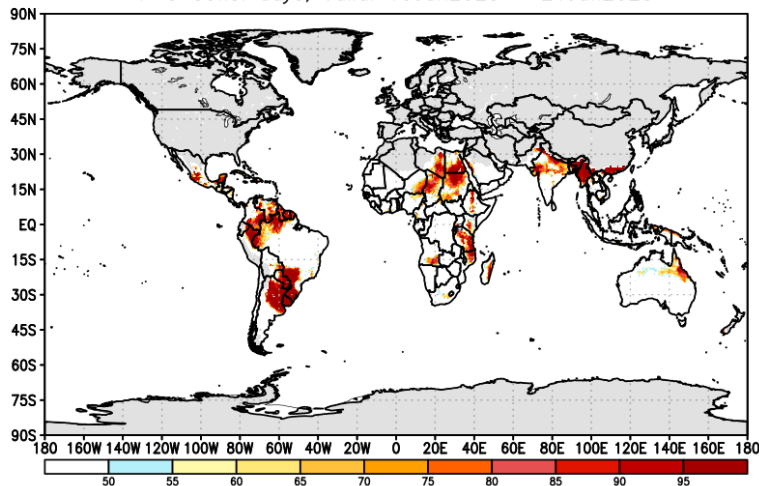
https://ftp.cpc.ncep.noaa.gov/International/extreme_fc/st/gefs_heat/gefs_comb3_week1_glb_prob_95.gif

- There is an increased chance for the hybrid index with calmer wind and less cloud cover to exceed the 80th percentile for at least three consecutive days in southern Paraguay, some parts of southwestern Brazil, northeastern Argentina, western Uruguay, some parts of southeastern Mexico, some parts of eastern Colombia and western Venezuela, and northern-central Ethiopia, some parts of western, central and eastern India and Bangladesh, and Myanmar. There is an increased chance for the index to exceed the 95th percentile for at least three consecutive days in some parts of southwestern Brazil, some parts of eastern India, and northern and central Myanmar.

GEFS Week-1 HI/Tmax Hybrid POE with Respect to Percentile Climo. Thresholds

>80th & > 3 Consc. Days

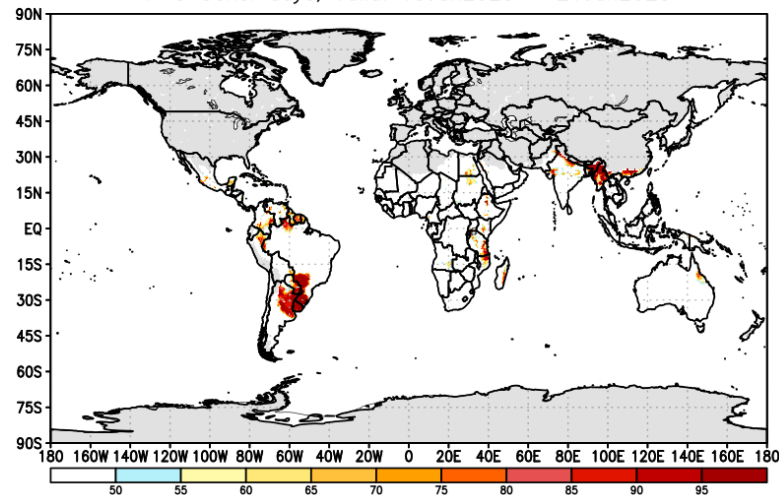
GEFS Week-1 POE Tmax/HI Hybrid > 80th Pctle.
> 3 Cons. days, Valid: 15Jan2025 - 21Jan2025



https://ftp.cpc.ncep.noaa.gov/International/global_hcat/gefs_week1_prob_hybrid_3_glb_80.png

>90th & > 3 Consc. Days

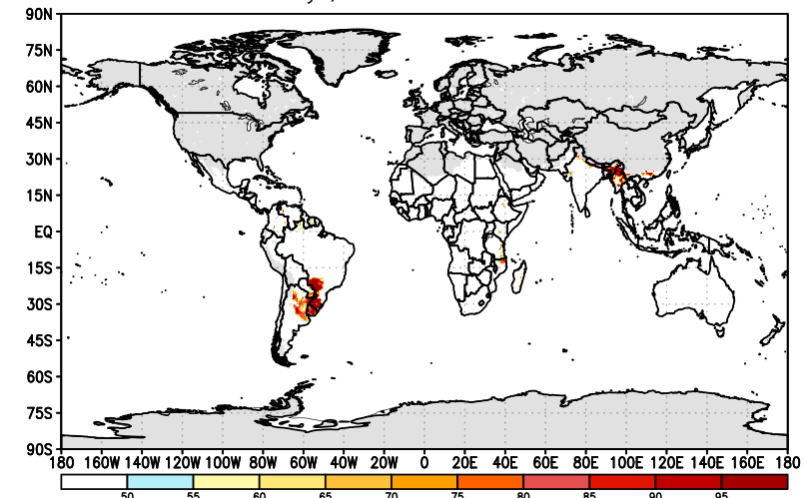
GEFS Week-1 POE Tmax/HI Hybrid > 90th Pctle.
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>95th & > 3 Consc. Days

GEFS Week-1 POE Tmax/HI Hybrid > 95th Pctle.
> 3 Cons. days, Valid: 15Jan2025 - 21Jan2025



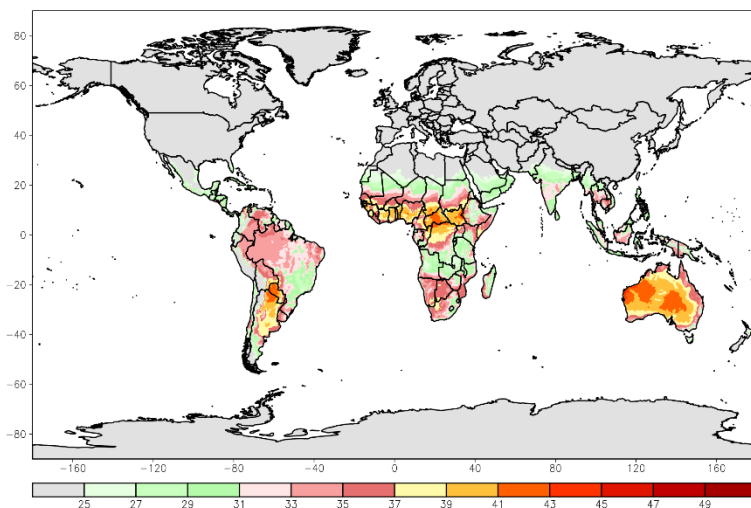
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- There is an increased chance for the hybrid index to exceed the 80th percentile for at least three consecutive days in some parts of western and southern Mexico, southern Colombia, parts of western, eastern and southern Venezuela, Guyana, Suriname, French Guiana, northeastern Peru, northern and southwestern Brazil, much of Paraguay, Uruguay, northeastern Argentina, parts of Tanzania, northern Mozambique, southern Angola, eastern Madagascar, central parts of Kenya and Ethiopia, northern and central Sudan, southern and eastern Egypt, eastern Libya, northern and western Chad, southeastern Niger, parts of western, some parts of eastern Pakistan, northeastern and eastern India, Bangladesh, Myanmar, some parts of southern China and northern Australia. There is also an increased chance for the index to exceed the 95th percentile over some parts of southwestern Brazil, Uruguay, northeastern Argentina, and some parts of eastern India and northern Myanmar.

GEFS Week-1 Tmax Percentile Climatology (°C)

Tmax 80th Percentile

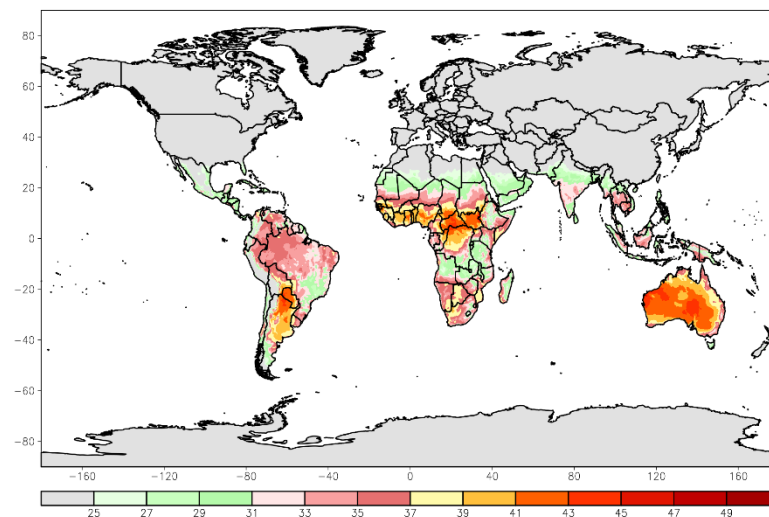
GEFS Week-1 Tmax Percentile Climo (Cels.), 80th Pctle.
Valid: 15Jan - 21Jan



https://ftp.cpc.ncep.noaa.gov/International/extreme_fcst/gefs_heat/gefs_hybrid_week1_glb_clm_80.gif

Tmax 90th Percentile

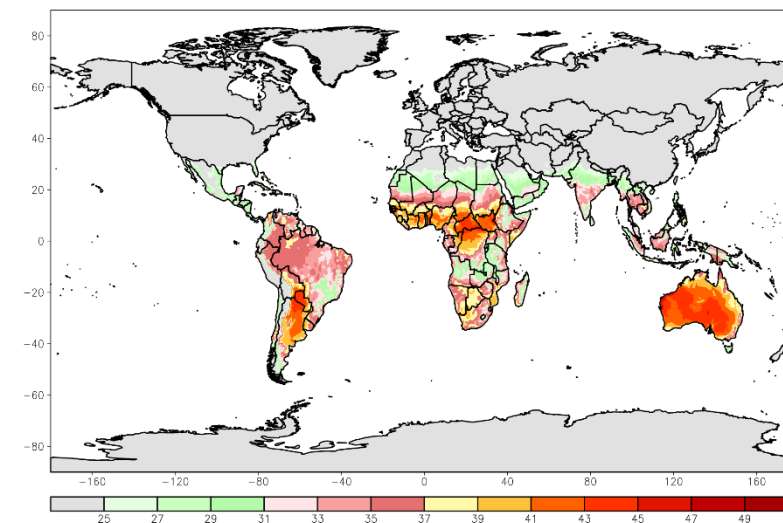
GEFS Week-1 Tmax Percentile Climo (Cels.), 90th Pctle.
Valid: 15Jan - 21Jan



https://ftp.cpc.ncep.noaa.gov/International/extreme_fcst/gefs_heat/gefs_hybrid_week1_glb_clm_90.gif

Tmax 95th Percentile

GEFS Week-1 Tmax Percentile Climo (Cels.), 95th Pctle.
Valid: 15Jan - 21Jan

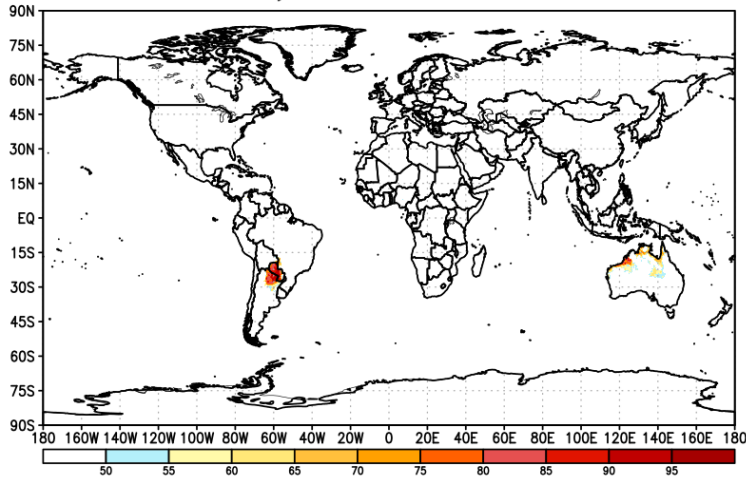


https://ftp.cpc.ncep.noaa.gov/International/extreme_fcst/gefs_heat/gefs_hybrid_week1_glb_clm_95.gif

GEFS Week-2 HI/Tmax Hybrid POE with Respect to Fixed Thresholds

>41°C & > 3 Consc. Days

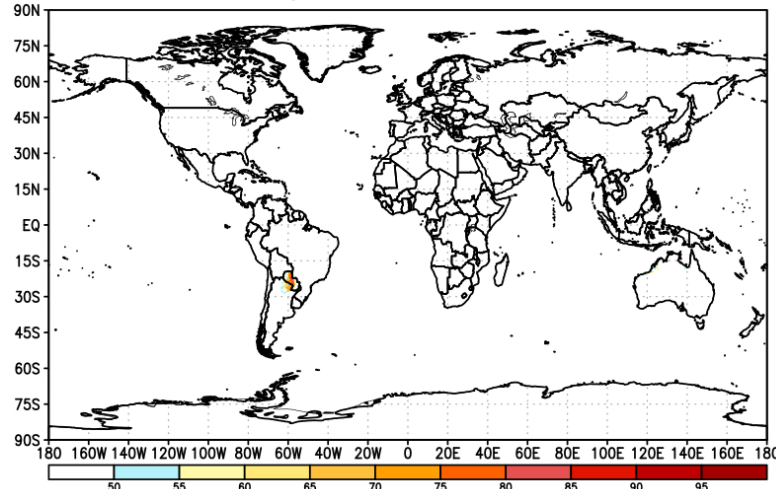
GEFS Week-2 POE Tmax/HI Hybrid > 41 Celc.
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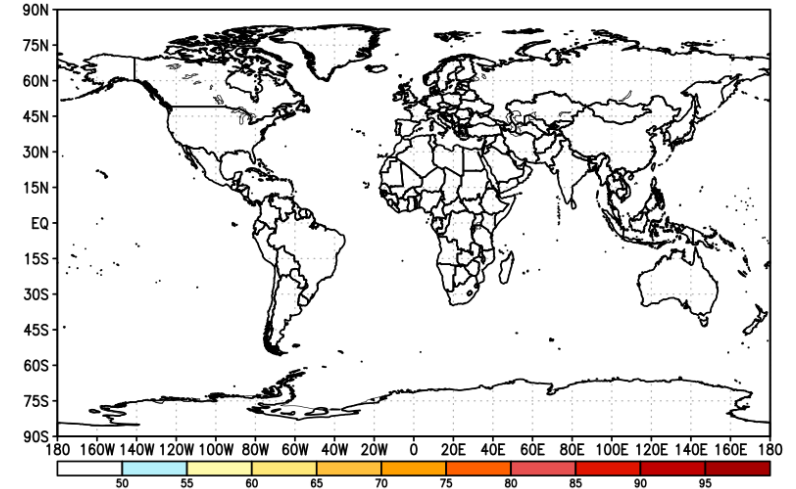
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GEFS Week-2 POE Tmax/HI Hybrid > 45 Celc.
> 3 Cons. days, Valid: 22Jan2025 – 28Jan2025



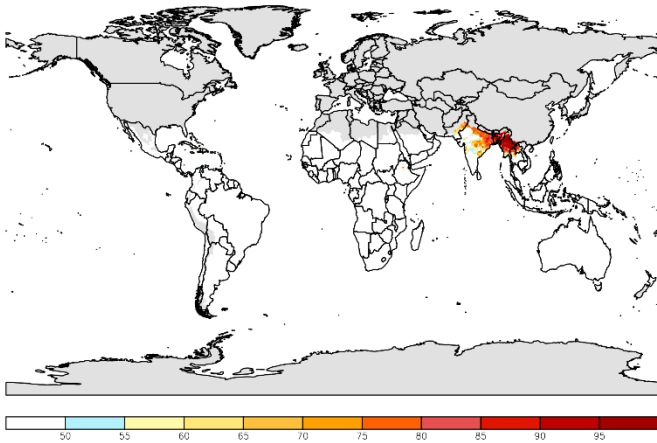
https://ftp.cpc.ncep.noaa.gov/International/global_hett/gefs_week2_prob_hybrid_3_glb_45.png

- There is an increased chance for the hybrid index to exceed 41°C for at least three consecutive days in Paraguay, and some parts of northeastern Argentina, and some scatter regions in northern and western Australia.

GEFS Week-2 POE, Tmax/HI with Calmer Wind (< 5m s-1) and less Cloud Cover (< 50%)

>80th & > 3 Consc. Days

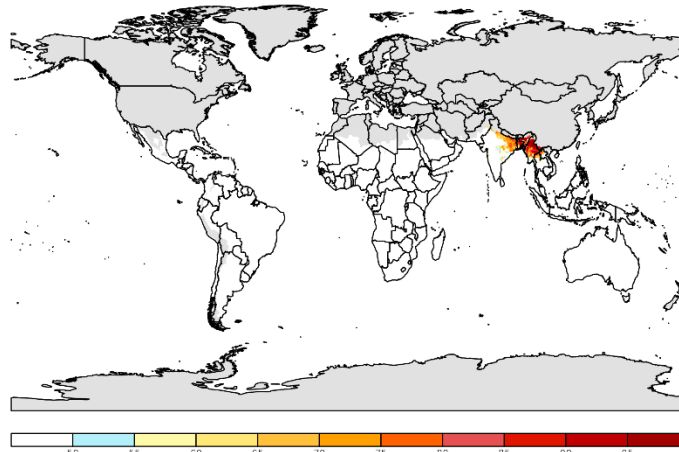
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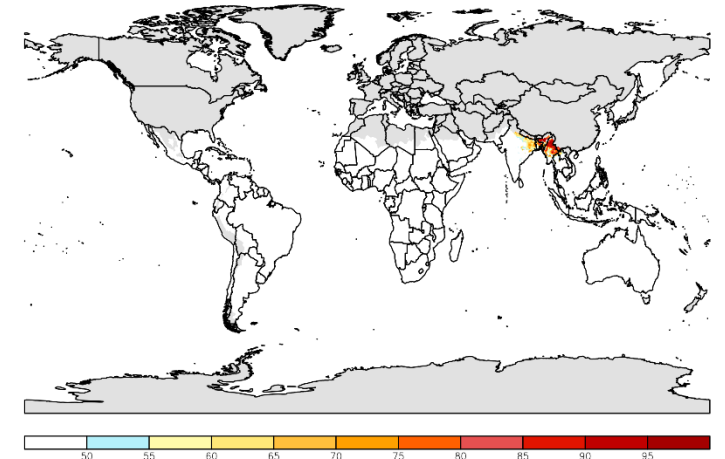
GEFS Week-2 POE Tmax/HI > 90th Pctle. with W. Speed < 5m/sec & Cloud C. < 50%, > 3 Cons. days, Valid: 22Jan2025 – 28Jan2025



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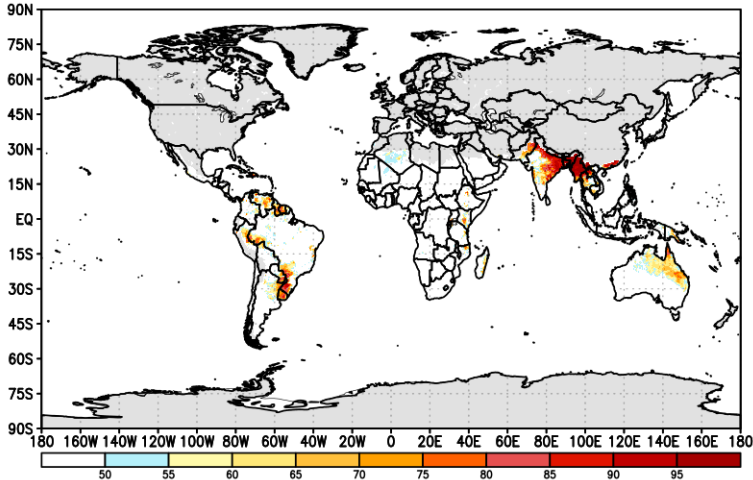
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- There is an increased chance for the hybrid index with calmer wind and less cloud cover to exceed the 80th percentile for at least three consecutive days in eastern Pakistan, parts of central, northeastern and eastern India, Bangladesh, Myanmar, and some parts of northern Bangkok and northern Laos. There is an increased chance for the index to exceed the 95th percentile for at least three consecutive days in eastern India, Bangladesh, northern, central and eastern Myanmar.

GEFS Week-2 HI/Tmax Hybrid POE with Respect to Percentile Climo. Thresholds

>80th & > 3 Consc. Days

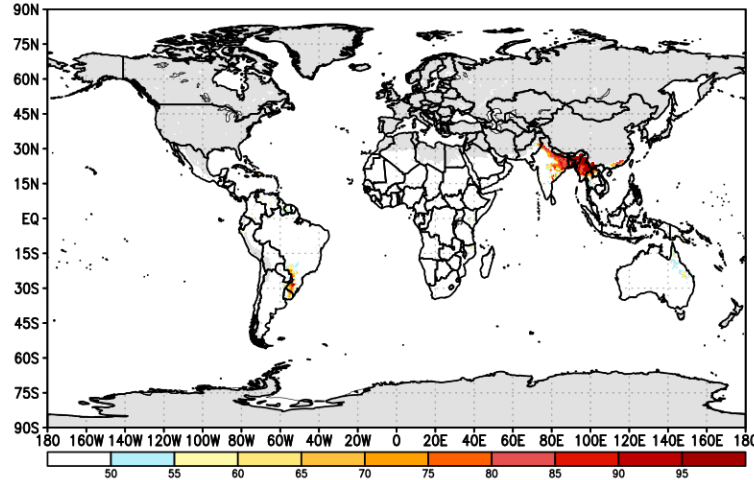
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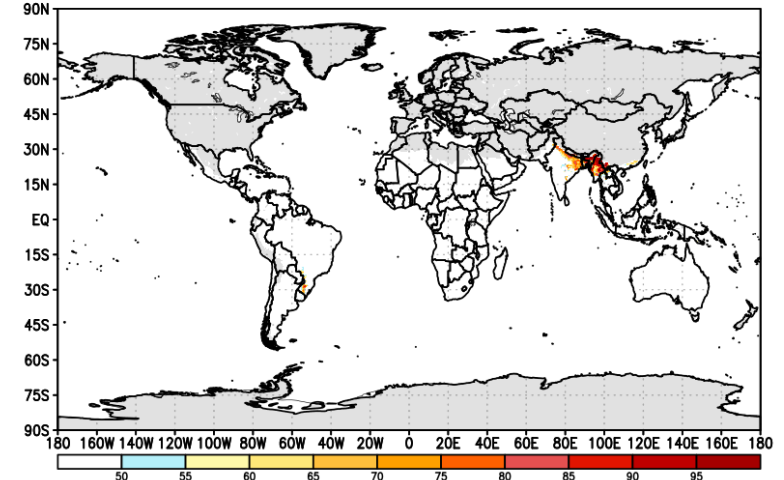
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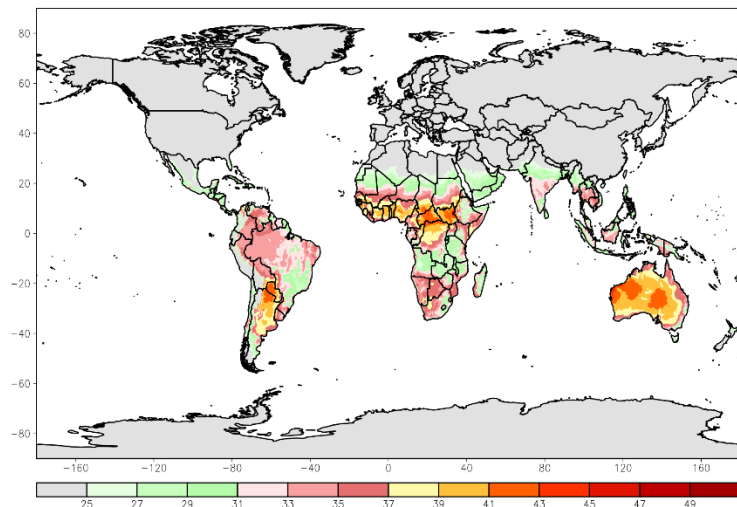
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- There is an increased chance for the hybrid index to exceed the 80th percentile for at least three consecutive days in some parts of southwestern and eastern Brazil, southern Paraguay, Uruguay, northeastern Argentina, central-eastern Venezuela, Guyana, Suriname, southern Kenya, central and eastern Pakistan, many parts of northern, central and eastern India, Bangladesh, Myanmar, northern Thailand, northern Laos, some parts of southern China, and parts of northern and northeastern Australia. There is also an increased chance for the index to exceed the 95th percentile over some parts of southwestern Brazil, parts of northern and eastern India, Bangladesh and Myanmar.

GEFS Week-2 Tmax Percentile Climatology (°C)

Tmax 80th Percentile

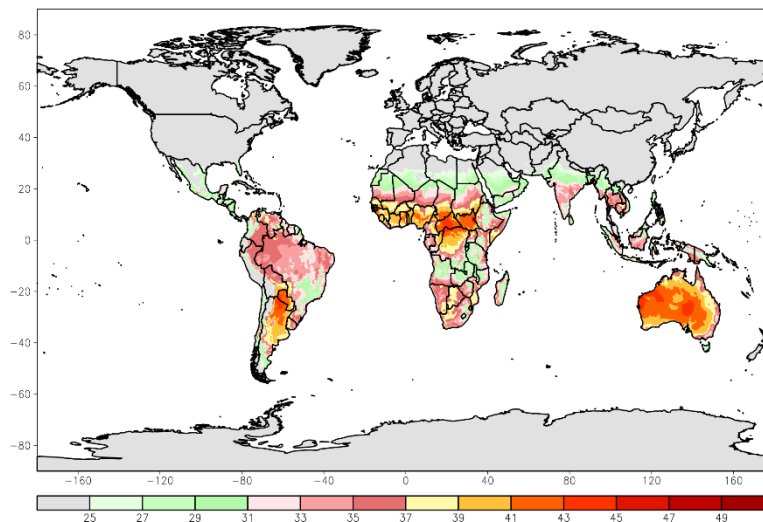
GEFS Week-2 Tmax Percentile Climo (Cels.), 80th Pctle.
Valid: 22Jan - 28Jan



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Tmax 90th Percentile

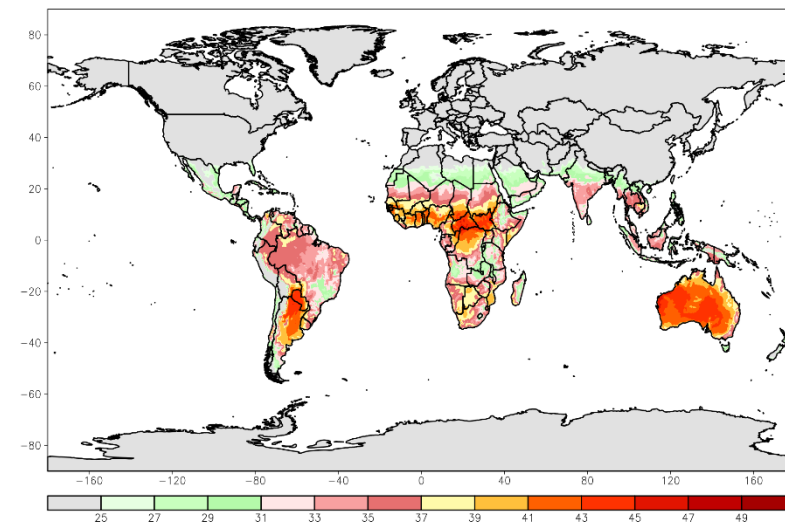
GEFS Week-2 Tmax Percentile Climo (Cels.), 90th Pctle.
Valid: 22Jan - 28Jan



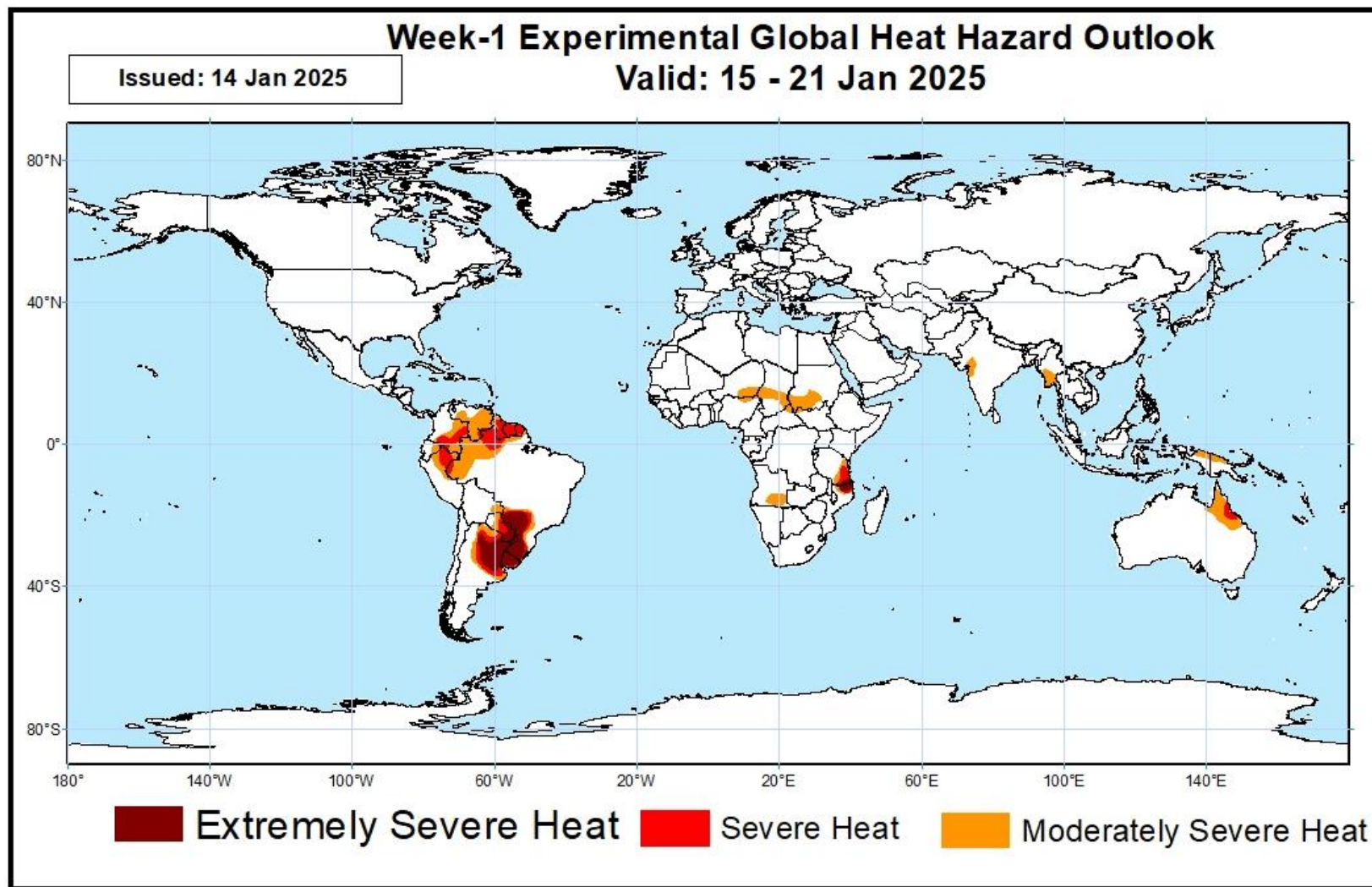
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Tmax 95th Percentile

GEFS Week-2 Tmax Percentile Climo (Cels.), 95th Pctle.
Valid: 22Jan - 28Jan



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Extremely Severe Heat: Tmax/HI are among the 5% highest values over the 30-year period 1991-2020
Severe Heat: Tmax/HI are among the 10% highest values over the 30-year period 1991-2020
Moderately Severe Heat: Tmax/HI are among the 20% highest values over the 30-year period 1991-2020

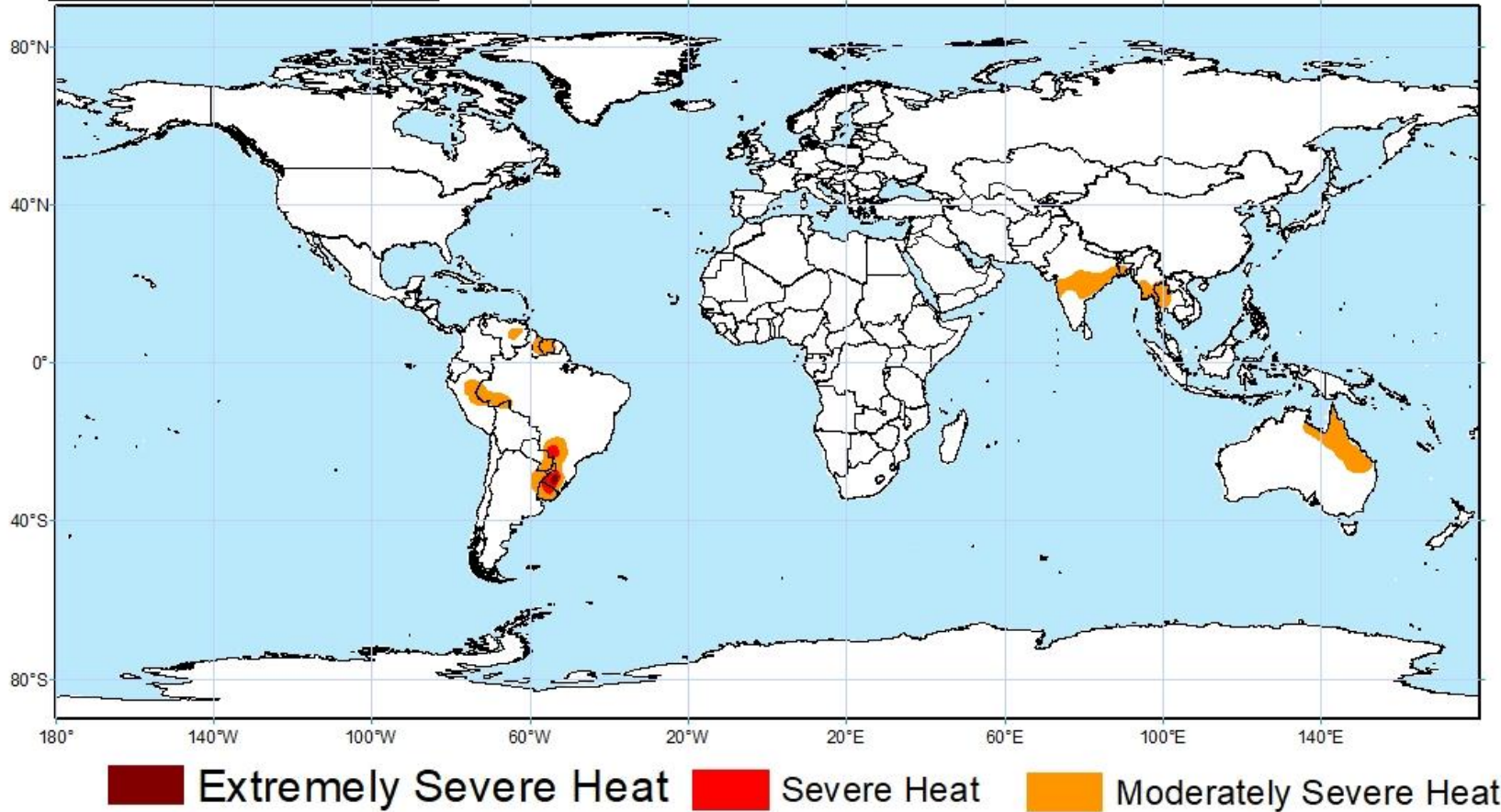
Note: For the Sahel region in Africa: **Tmax/HI hybrid > 41°C for at least 3 consecutive days** is also considered as **Moderately Severe Heat**

- There is an increased chance of *moderately severe heat* over the southern Colombia, western, southern and eastern Venezuela, Guyana, Suriname, French Guiana, northern, and southwestern Brazil, Paraguay, Uruguay, northeastern Argentina, northeastern Peru, eastern Ecuador, southeastern Bolivia, southeastern Tanzania, some parts of northern Mozambique, southern Angola, some parts of southern Sudan and central Chad, some parts of western India, southern Myanmar, parts northeastern Australia, and eastern Papua New Guinea
- There is an increased chance of *extremely severe heat* over southwestern Brazil, northeastern Argentina, Uruguay, and some parts of northeastern Mozambique.

Week-2 Experimental Global Heat Hazard Outlook

Valid: 22 - 28 Jan 2025

Issued 14 Jan 2025



Extremely Severe Heat: Tmax/HI are among the 5% highest values over the 30-year period 1991-2020

Severe Heat: Tmax/HI are among the 10% highest values over the 30-year period 1991-2020

Moderately Severe Heat: Tmax/HI are among the 20% highest values over the 30-year period 1991-2020

Note: For the Sahel region in Africa: Tmax/HI hybrid > 41°C for at least 3 consecutive days is also considered as **Moderately Severe Heat**

- There is an increased chance for *moderately severe heat* in some parts of central Venezuela, Guyana, Suriname, eastern Peru, southwestern Brazil, some parts of southern Paraguay and northeastern Argentina, much of Uruguay, parts of western, central and eastern India, southern Myanmar, northeastern Bangkok, and parts of northeastern Australia.
- There is an increased chance for *extremely severe heat* over some pockets of region in southwestern Brazil.