

Rainfall and Temperature Outlook for Trinidad and Tobago, July to December 2023

Key words: below-normal ("less than usual"), near-normal ("usual") or above-normal ("More than usual")

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Rainfall and Temperature Outlook for Trinidad and Tobago, July to December 2023

Mostly Near Normal Rainfall for July to September: Flooding Potential is

Moderate

Key Messages:

- Moderate chances exist for mostly near-normal rainfall totals during July to September (JAS) over Trinidad and Tobago;
- Near normal means that as usual conditions with average rainfall events are possible;
- Some small pockets may experience above-normal rainfall while others may experience below-normal rainfall;
- Enhanced chances for an average number of extremely wet days (> 25.0 mm) during JAS;
- July and August have the highest chances for near-normal rainfall;
- September has a moderate chance for near-normal rainfall;
- JAS period rainfall totals with the highest chance of occurring range between 431-904 mm in Trinidad and between 425-658 mm in Tobago;
- Both day and night temperatures are predicted to be above average for most of Trinidad and Tobago with high (70%) probabilities for short-duration hot spells in July, August and September.

Likely Impacts:

- Mostly average rainfall totals are expected during July to September with moderate chances for the usual number of wet days and a moderate chance for flooding to occur;
- An increase in surface water ponding in areas can promote mosquito breeding. This will increase the risk for higher incidences of vector-borne diseases, especially during July and August;
- Frequent rainfall events, mixed with warm and humid conditions tend to promote rapid multiplication of some agricultural pests, diseases, and fungal growth.
- A high probability exists for high fly and mosquito populations.

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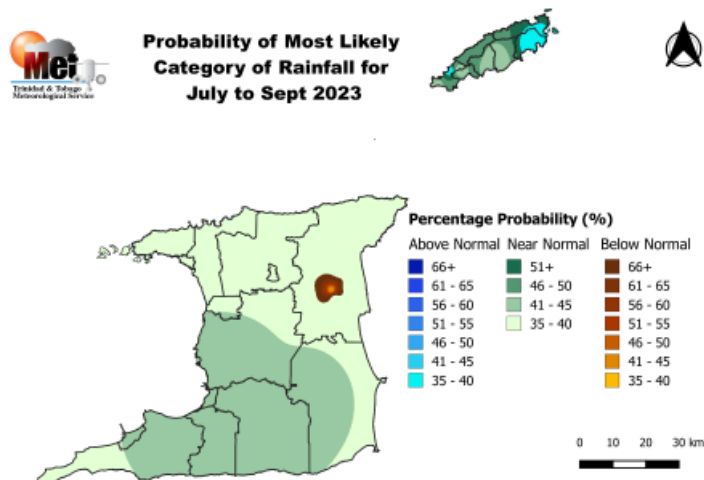


Figure 1: Category of rainfall likely for JAS (July to September) 2023 with the highest chance of occurrence expressed as probabilities represented on the map. Blue areas indicate places with an increased chance for above-normal rainfall, brown areas show an increased chance for below-normal rainfall, while green areas show an increased chance for near-normal rainfall. Normal is defined by the rainfall that was observed in middle one-third of the JAS period rainfall totals during the historical period used to produce the outlook.

- A moderate probability exists for near-normal rainfall totals over most parts of Trinidad and Tobago during JAS;
- Chances are moderate (68%) for the usual number of extremely wet days (> 25.0 mm) for JAS; i.e. expect between 4 - 10 extremely wet days in Trinidad and 3-7 in Tobago during the period.

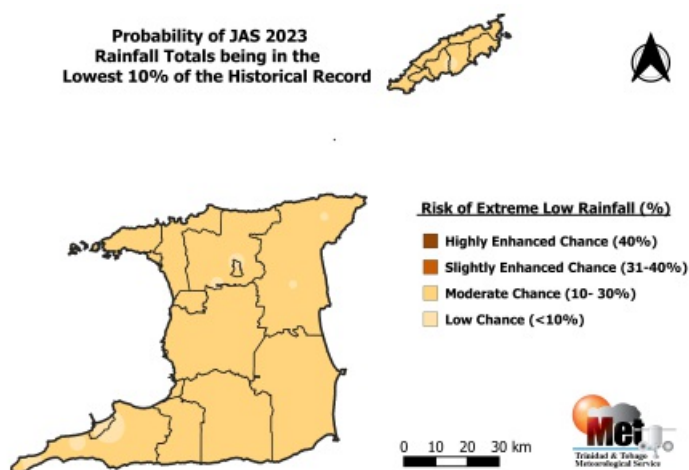


Figure 2: Risk of the JAS 2023 being extremely drier than normal (within the lowest 10% on record).

- The risk of extremely drier-than-normal conditions is moderate (6-29%) over both islands;
- A moderate (65%) chance of dryness is likely to occur in September.

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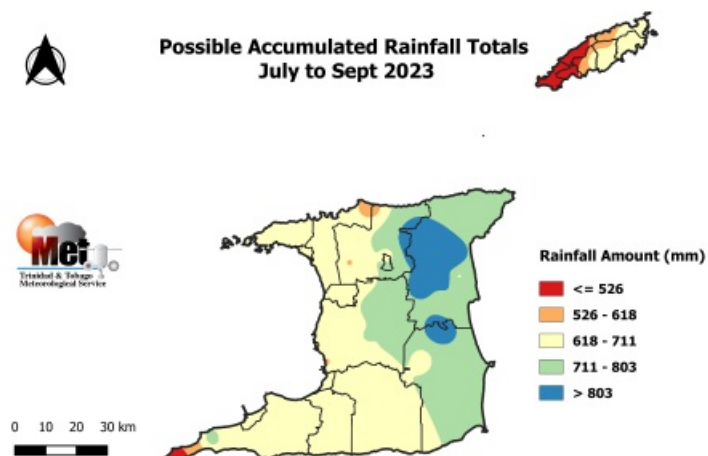


Figure 3: Outlook of possible rainfall accumulated totals for July to September, with the highest chance of occurring.

- The largest accumulated rainfall totals for JAS are likely to be as high as 904 mm in areas such as North Oropouche, Valencia, Sangre Grande and Plum Mitán in Northeast and east Trinidad; and near 658 mm in Goodwood, Mt. Saint George and environs in southeast Tobago.

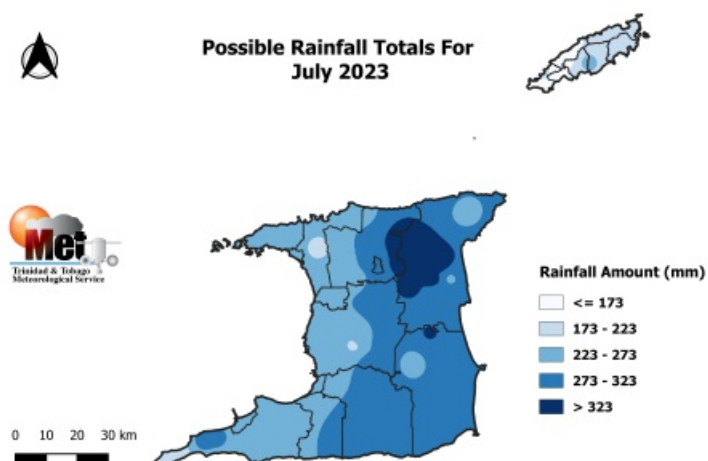


Figure 4: Possible rainfall totals for July 2023.

- July rainfall with the highest chance of occurring ranges from about 171-379 mm in Trinidad and 118-181 mm in Tobago.

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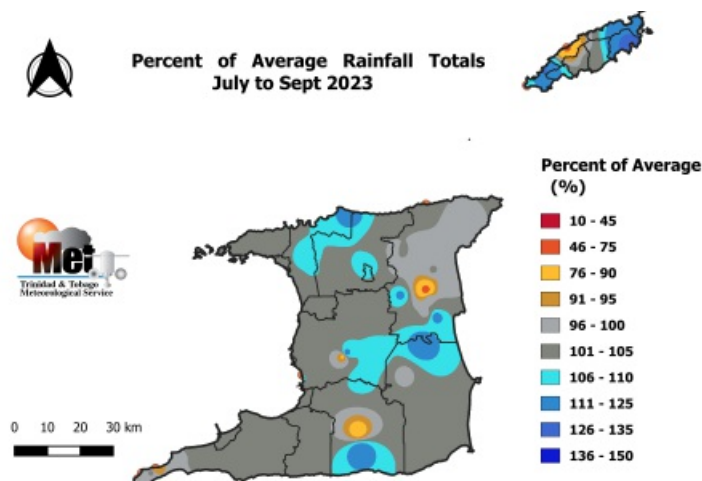
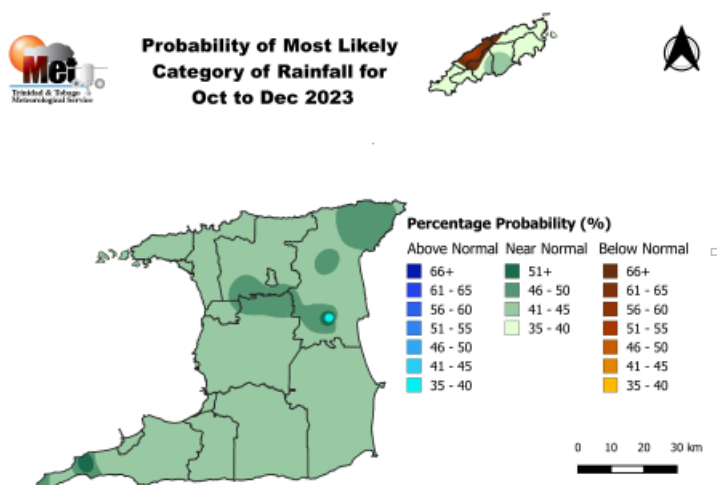


Figure 5: Percentage of Average Rainfall Totals for July to September 2023

- July to September (JAS) rainfall totals are likely to be near normal over most of Trinidad and Tobago;
- Larger wetter than usual pockets are likely to occur over southern, central and northern Trinidad and northeastern and southwestern ends of Tobago;
- Few drier-than-usual pockets are likely to occur over central and eastern Trinidad and northwestern Tobago.



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Figure 6: Category of rainfall likely for October to December (OND) 2023 with the highest chance of occurrence expressed as probabilities represented on the map. Blue areas indicate places with an increased chance for above-normal rainfall, brown areas show an increased chance for below-normal rainfall, while green areas show an increased chance for near-normal rainfall. Normal is defined by the rainfall that was observed in the middle one-third of the OND seasons during the historical period used to produce the outlook.

- Mostly near-normal rainfall totals are expected during the period October to December 2023 over Trinidad and most parts of Tobago.
- Below-normal rainfall totals are expected on the leeward side of the main ridge in Tobago.

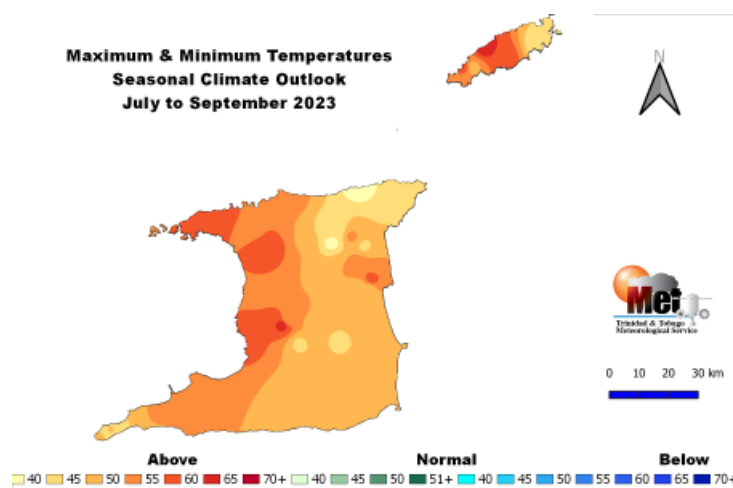


Figure 7: The map shows the colour-coded category (below-normal, above-normal, and near-normal) of maximum and maximum temperatures that is most likely to occur across Trinidad and Tobago for the July to September (JAS) period 2023. The colour-coded bar-graph with the numbers to the right gives the likelihood for each forecast category to occur.

The Temperature Outlook Favours Above Normal Temperatures for July to September 2023.

- Both daytime and night temperatures are likely to be warmer than average over both islands;
- There is a 66% chance of warmer-than-average days in urban and built-up areas in Trinidad and Tobago;
- Chances of warmer than average nights are highest in Trinidad where there is a 58% chance, while Tobago has a 55% chance;
- A moderate chance (65%) exists for short-duration hot spells from July to September with maximum temperatures greater than 34.0°C in Trinidad, greater than 33.0°C in Tobago;

Climatic Influencers and Context of the Outlook

- Currently, sea surface temperatures (SSTs) in waters surrounding Trinidad and Tobago and further east of the islands are above average. Most climate models surveyed favour above average conditions to persist throughout the period July to December.
- Weak El Niño conditions is favoured during JAS 2023 and possibly strengthen to moderate El Niño conditions by the end of the year. El Niño conditions

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generally have been associated with the reduction of local rainfall, but not always.

- During the last week of June, a neutral phase of the North Atlantic Oscillation (NAO) was observed and is forecasted to slowly transition to a weak negative phase that will continue into July. The overall influence should be a small positive impact on local rainfall.
- Models indicate that the Madden Julian Oscillation (MJO) signal was strong and positive during the last week of June, and is likely to reside over the region for a two-week period. This will have a positive influence on the first half of July's rainfall.

How Should You Respond?

Take Early Action!

Health Sector:

- Clear bushes, open drainage systems, fumigate in and around residences;
- Revisit contingency plans to manage spike in vector borne incidences and rainfall-related infections.

Disaster Risk Management Sector:

- Sensitize communities on the forecast and its negative impacts;
- Revisit early warning information dissemination channels;
- Alert communities in low-lying areas (flood prone) to act early;
- Alert at-risk residents and communities that are still prone to landslide and slip.

Agriculture & Food Security Sector

- Practice soil moisture conservation like mulching and trenches;
- Clear vegetation from crop beds and drains to ease waterlogged soils.
- Put in place disease control measures.

Water, Drainage and Energy sector

- Implement water harvesting, storage and proper usage;
- Conduct routine de-silting of water channels, canals and reservoirs;
- Remove dry branches, trees and overhangs near electrical wires.

General Public

- Proper preparation especially for persons in at-risk areas;
- Clean drains and surrounding areas of debris, be sand-bag ready;
- Conserve, store and manage water in a safe and adequate manner;
- Be watchful for extreme rainfall events especially on extremely hot days;
- Take measures to lessen the potential impacts from the expected increased rainfall and warmer-than-average temperatures.

Be vigilant and visit the Met Service website regularly to keep up to date on local weather changes daily at www.metoffice.gov.tt or download our mobile app on Google Play Store or Apple iStore.