

TRINIDAD AND TOBAGO METEOROLOGICAL SERVICE

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Trinidad and Tobago Dryness Monitor and Outlook by End of August 2023

Dryness Indicator from June to August 2023 & 3-month Dryness Outlook for September to November 2023

Issued: Sep 21, 2023

Dryness Indicator from June to August 2023 & 3-month Dryness Outlook for September to November 2023

Key Message:

Near normal rainfall amounts fell over Trinidad and Tobago during the months of June and July while in August below normal rainfall fell in Trinidad and above normal rainfall fell in Tobago. Piarco's monthly totals for June-July-August range from 221.1 mm, 260.4 mm, and 134.3 mm respectively, while Crown Point, Tobago's monthly totals for June-July-August range from 135.2 mm, 151.0 mm and 224.9 mm respectively. The outlook for the next three months, September-October-November 2023 shows little to no concern for dryness.

Dryness Indicator for June-July-August 2023

The month of June 2023 had near-normal rainfall amounts in both islands. Trinidad had fourteen relatively wet days (1.0-10.0 mm) and eight wet days (>10.0 mm) which gave a monthly total of 221.1 mm, while Tobago had ten relatively wet days (1.0-10.0 mm) and three wet days (>10.0 mm) and one excessively wet day (> 50.0 mm) which gave a monthly total of 135.2 mm.

The month of July also had near-normal rainfall amounts in both islands. Trinidad had twelve relatively wet days (1.0-10.0 mm) and nine wet days (>10.0 mm) which gave a monthly total of 260.4 mm, while Tobago had thirteen relatively wet days (1.0-10.0 mm) and four wet days (>10.0 mm) which gave a monthly total of 151.8 mm.

The month of August had a mixture of below normal and above normal rainfall amounts in Trinidad and Tobago. Trinidad had thirteen relatively wet days (1.0-10.0 mm) and four wet days (>10.0 mm) which gave a monthly total of 134.3 mm, while Tobago had eight relatively wet days (1.0-10.0 mm) and three wet days (>10.0 mm) and one excessively wet day (>50.0 mm) which gave a monthly total of 224.9 mm.

The 3-month dryness indicator for June-July-August 2023 shows dryness indicator values that ranged from -1.9 to +0.42, which range between the <u>no cause for concern to very dry conditions</u> (see Figure 1).

The colour-coded dryness indicator map showing the observed level of dryness is based solely on rainfall and can be used for decision-making or for heightening awareness of dryness.

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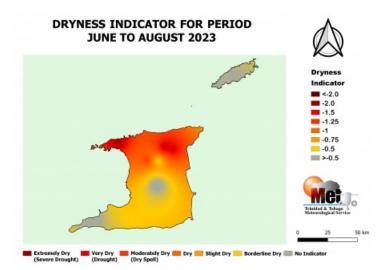


Figure 1. The colours on this map show observed dryness levels based on the rainfall differences from average, which have been standardized and expressed as the number of standard deviations less than average. The period used to compute the dryness is the 3-month period June to August 2023 compared to the historical average for the same 3-month period. The yellow to red colours indicate borderline dry to extremely dry levels of dryness. The grey colour indicates areas where there is no significant dryness concerns.

Dryness Outlook for September to November 2023:

The accumulated rainfall received nationwide, during the months of June to August 2023, together with the predicted volume of rainfall for the months of September 2023 to November has shown no concern for dryness at this time across the islands. The return of rain events are expected to occur in the latter part of September and frequent rainfall events are expected in October and November 2023. The Dryness Outlook shows dryness indicator values between -0.28 to +0.09 are likely to develop across all of Trinidad and Tobago by the end of November 2023 (see Figure 2). The outlook is based solely on rainfall and should be used only as a guidance tool.

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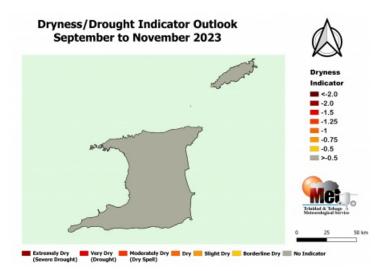


Figure 2. The colours on this map show the predicted levels of dryness for the period September to November 2023. It is based on the difference between standardized accumulated rainfall (observed and predicted) from September to November 2023 and the historical average rainfall for the same period. The yellow to red colours indicate borderline dry to extremely dry levels of dryness. The grey colour indicates areas where there is no significant dryness concerns.

Standardized Precipitation Index

The Standardized Precipitation Index (SPI) is an index showing the severity and rarity of dryness or wetness of an area. Negative values of SPI indicate less than median rainfall and drier conditions; positive values indicate greater than median rainfall and wetter conditions. In general, dryness impacts are expected when the value of the 3-month SPI lies near -1.0. As the negative SPI value becomes larger in amount than -1.0, the severity of impacts increases. For Trinidad and Tobago, extreme dryness occurs in the dry season when negative SPIs are larger than -1.25.