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Trinidad and Tobago Dryness Monitor and Outlook by End of May 2025

Dryness/Drought Indicator and outlook

Issued: May 8, 2025

Key Message: Few concerns of dryness expected across Trinidad and Tobago by the end of July.

Following an extremely wet start to the 2025 dry season, dryness concerns increased slightly during the previous three months. Following near-normal dryness January-February-March in Tobago, the severity of dryness increased as a dry spell developed in southwest Tobago during February-March-April, while central and northern Tobago remained near-normal. Across Trinidad near-normal dryness prevailed during February-March-April. Although areas of northeast and northwest Trinidad such as Piarco and Valencia turned slightly negative, these alongside the majority of areas had no significant dryness concern.

Overall, there were few significant concerns of dryness observed following beneficial rainfall amounts in April across Trinidad and Tobago. Trinidad experienced much below normal rainfall in February, below normal rainfall in March, then near-normal in April. The rainfall totals at Piarco for February, March, April are 17.5 mm (36% of average), 26.1 mm (64% of average) and 62.0 mm (120% of average), respectively. Meanwhile, Tobago also experienced much below normal rainfall during February and March and then rebounded in April to near-normal rainfall amounts. The rainfall totals in Tobago for February, March and April are: 9.0 mm (16% of average), 19.5 mm (45% of average) and 46.2 mm (96% of average), respectively. Although rainfall deficits occurred from February to March, due to the climatological low rainfall usually expected there were no drought concerns by the end of April.

In February, Trinidad had one wet day (>10.0mm) and three relatively wet days (<10.0mm) and Tobago had no wet days (>10.0 mm), three relatively wet days (<10.0 mm) and the rest of month was a mixture of relatively dry days (< 1.0 mm) and dry days (0.0 mm). In March, no wet days were observed nationwide, with seven relatively wet days (< 10.0mm) in Trinidad and six relatively wet days in Tobago with the rest of days having a mixture of relatively dry days (< 1.0 mm) and dry days (0.0 mm).In April, two wet days (>10.0mm) occurred in both Tobago and Trinidad, with eight relatively wet days (<10.0 mm) in Trinidad and six relatively wet days in Tobago and the rest of days were a mixture of relatively dry days (<1.0mm) and dry days (0.0 mm).

The 3-month dryness indicator January to March 2025 ranged from +0.25 to +1.76, so the severity level ranged from Near Normal to Moderately Wet. The 3-month dryness indicator February to April 2025 shows dryness indicator values that ranged from +0.17 to +1.47, so the severity level ranged from Near Normal to Wet (see Figures 1 & 2). The colour-coded dryness indicator map showing observed level of dryness is based solely on rainfall and can be used for decision-making or for heightening awareness on dryness.

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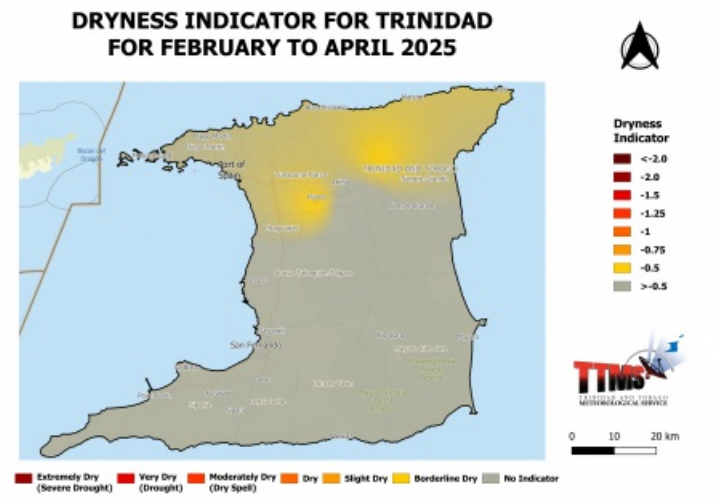

Figure 1. The colours on this map show observed dryness levels based on the rainfall differences from average, which have been standardized and expressed as the number of standard deviations less than average. The 3-month period used to compute the dryness is February to April 2025 compared to the historical average for the same 3-month period. The yellow to red colours on the map indicate areas with borderline-dry to extremely dry levels of dryness. The grey colour indicates areas where there are no significant dryness concerns.

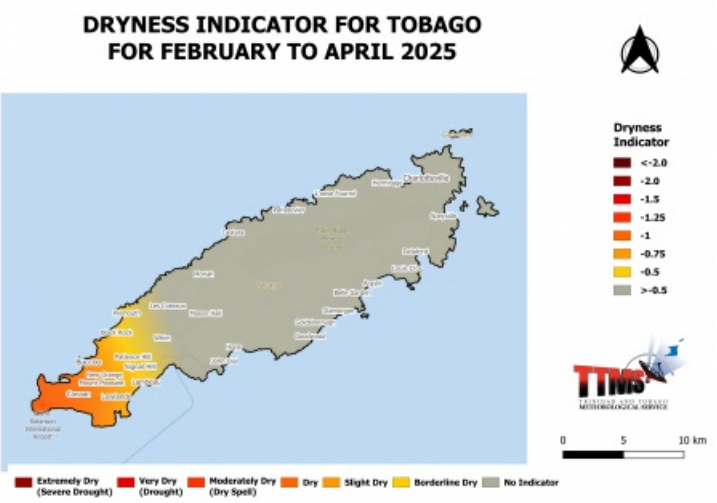

Figure 2. The colours on this map show observed dryness levels based on the rainfall differences from average, which have been standardized and expressed as the number of standard deviations less than average. The 3-month period used to compute the dryness is February to April 2025 compared to the historical average for the same 3-month period. The yellow to red colours on the map indicate areas with borderline-dry to extremely dry levels of dryness. The grey colour indicates areas where there are no significant dryness concerns.

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Dryness Outlook for May to July 2025:

The dryness outlook shows no concern for Trinidad and Tobago through May and July, with no concerns of significant dryness in the short-term. Near-normal rainfall is forecast in May, with near-to or below normal rainfall forecast June and July during the early wet season. The end of La Nina conditions in the central and eastern Pacific Ocean since April combined with the absence of other large-scale climatic factors has added to the forecast uncertainty. So local rainfall intensity and amounts through May and July will depend largely on local and regional weather systems.

The predicted volume of rainfall from May to July 2025 is expected to maintain soil moisture, streams and river levels within catchment areas and replenish reservoirs.

The Dryness Outlook shows dryness indicator values between +0.01 and +0.02 are likely to develop across the vast majority of Trinidad and Tobago by the end of July (see Figure 2).

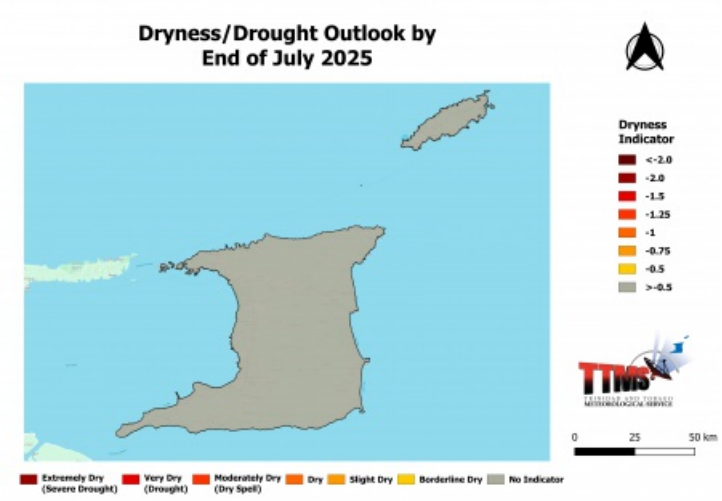

Figure 2. The colours on this map show the predicted levels of dryness for the period May to July 2025. It is based on the difference between standardized accumulated rainfall (observed and predicted) from May to July 2025 and the historical average rainfall for the same period. The yellow to red colours indicate borderline dry to extremely dry levels. The grey colour indicates areas where there are 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 smaller 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.