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Heightened Concern for Impactful Dryness by May Month End

Key Messages

Rainfall during April 2018 has been near to above average in Trinidad and below average in Tobago, despite being above average over the 12-month period, May 2017 to April 2018, in both islands.

This has maintained no concern for impactful dryness up to the end of May, 2018.

Drought/Dry-Spell Monitor

The 12-month Standardized Precipitation Index (SPI) shows wet to exceptionally wet conditions were observed at selected locations across the country. Severe to exceptional wet conditions are introduced in parts of northeast Trinidad where three of the major water intakes/reservoirs are located. Wet conditions occurred over the rest of island and extended into Tobago (see Figure 1).

Percent of average 12-month cumulative rainfall exceeded average levels in all areas with largest surpluses in Trinidad and smallest surpluses in Tobago (see Figure 2).

April 2018 rainfall showed a wet trend in Trinidad in contrast to significant rainfall deficiencies in Tobago (see Figure 3).

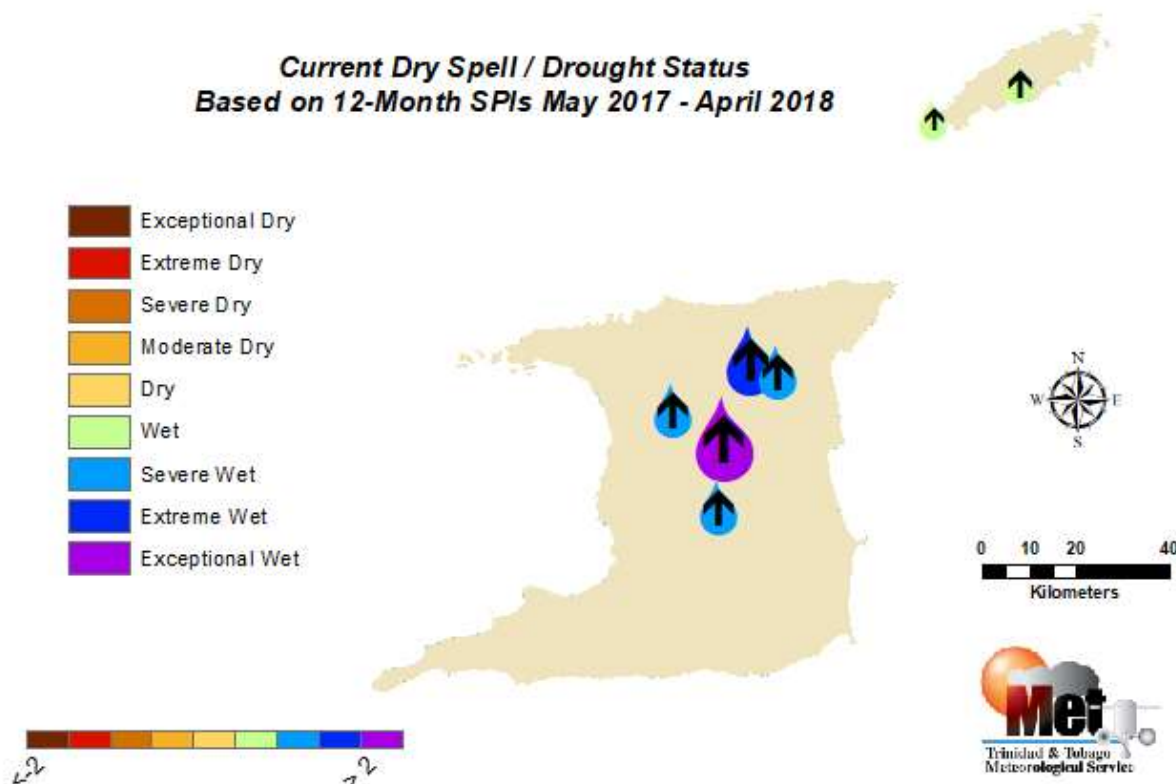


Figure 1



**Current Dry Spell / Drought Status
Based 12-month Percentage of Rainfall
POA May 2017 - April 2018**

% Of Average

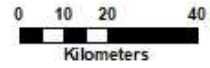
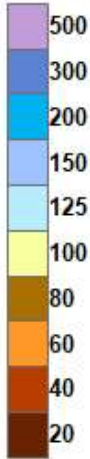


Figure 2

**Latest Dry Spell / Drought Status
Based April 2018 Rainfall Percentage of Average**

% Of Average

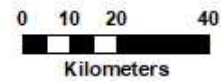


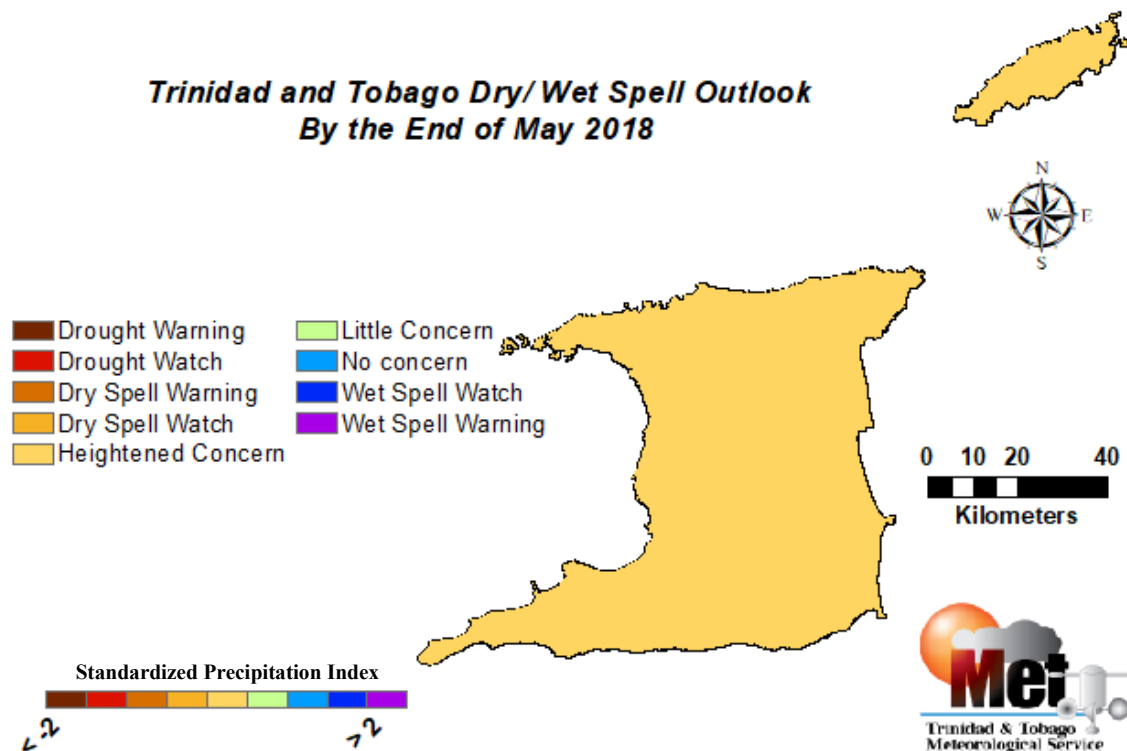
Figure 3



Drought Indicator Outlook:

- ❖ The 3-monthly SPI based drought indicator for the period ending May 2018 indicates a slight drying trend with marginal expansion of negative SPIs leading to possible rainfall deficits. This moves the drought monitor from no concern to heightened concern for impactful dryness (see Figure 4).
- ❖ In general, dryness impacts are expected if the 3-month SPI is lower than -1.0 (very dry or worse). Dryness impacts may include less than usual stream-flows, reservoir levels, groundwater flows and recharge.

Figure 4



Standardized Precipitation Index

The Standardized Precipitation Index (SPI) is used by the Meteorological Services Division to monitor and estimate dryness and wetness on different timescales. It is a measure of relative dryness and wetness compared to the long term average rainfall for a particular timescale. A negative SPI reflects a rainfall shortfall and hence relative dryness. In general, dryness impacts are expected when the value of the 3-month SPI lies near -1.0. As the SPI value becomes less than -1.0, the severity of impacts increases. For Trinidad and Tobago, extreme or unusual dryness is considered to occur when negative SPIs are lower than -1.25 in the dry season and near -1.5 or lower in the wet season. Negative SPIs are used to characterise the severity of the dryness. A positive SPI reflects a rainfall surplus and hence relative wetness.