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Trinidad and Tobago Dry/Wet Spell Monitor and Outlook by End of August 2017

Slight Concern for Short Term (3-month) Impactful Dryness by End of August

3-Month Outlook (short-term):

- ❖ The Dry Spell Outlook for the three-month period ending August 2017 shows some increased concerns for impactful dryness across Trinidad and Tobago, when compared with one to two months ago.
- ❖ Taking into account observed rainfall from March to May 2017 where SPIs were mostly negative and the SPI-based outlook for the three months ending August 2017, the Dry Spell Outlook indicates no short-term dry-spell or drought concerns developing for Trinidad and Tobago by the end of August; however slightly negative SPIs are likely in large areas (see figure 1).
- ❖ The trend towards enhanced concern for impactful dryness is largest in parts of eastern Trinidad and southwest Tobago, where negative SPIs are likely to be smallest (see figure 1).
- ❖ Although there is a trend towards negative SPIs in large areas, the chances for extreme or excessive dryness (i.e. SPIs values less than -1.5), indicated by below normal probabilities, remain relatively small for both islands by the end of August 2017 (see figure 2).

Standardized Precipitation Index

The Standardized Precipitation Index (SPI) is used by Trinidad and Tobago Meteorological Service (TTMS) 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 locally, 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 taken to occur when negative SPIs is lower than -1.25 in the dry season and near -1.5 in the wet season. Negative SPIs are used to characterise the severity of the dryness and as such, dry spells and drought categories. A positive SPI reflects a rainfall surplus and hence relative wetness.

Figure 1

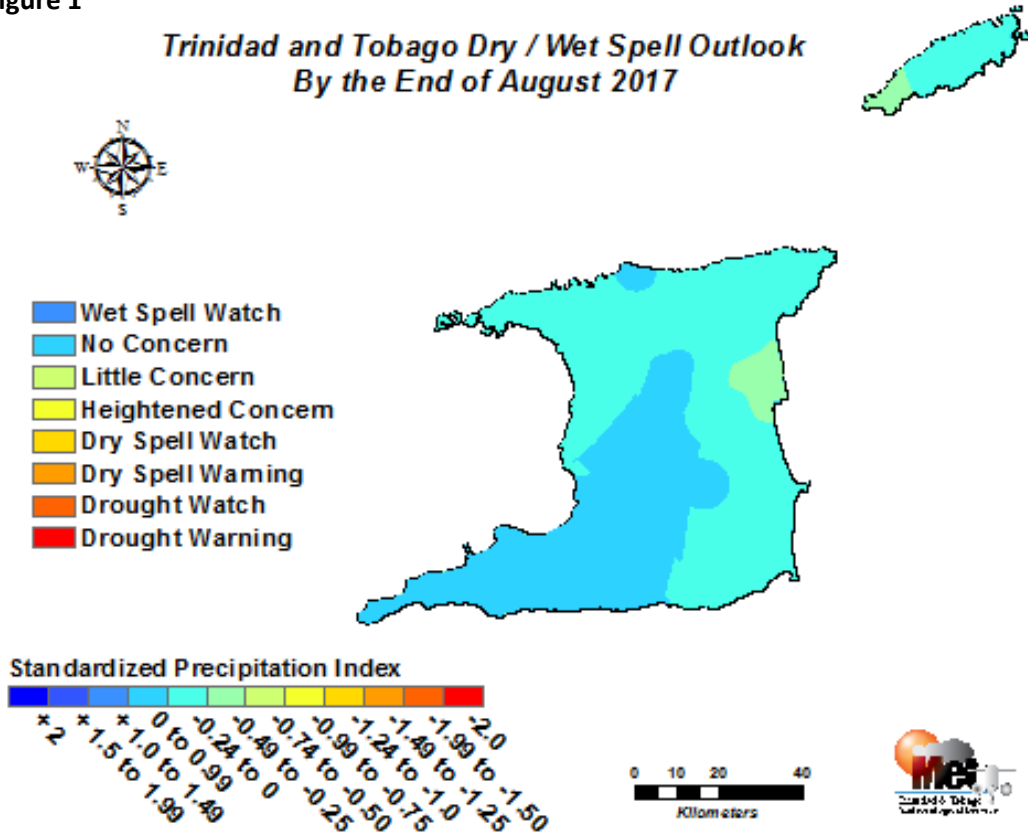
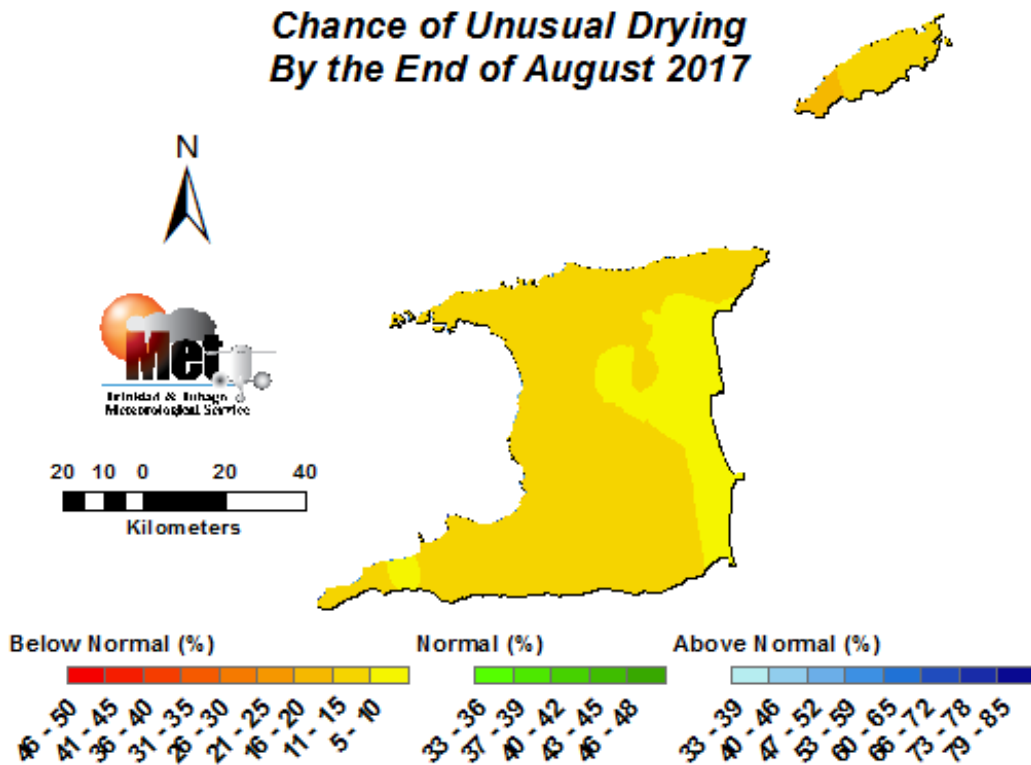


Figure 2





Longer-term (12-Month) Dryness Assessment:

❖ The 12-month longer-term dryness assessment for the period June 2016 to May 2017 shows that although most of Trinidad received deficit rainfall amounts during the period, when the rainfall is characterised as SPIs, only a few areas show enhanced concern for impactful dryness. However, in Tobago concerns for longer-term dryness are very much enhanced as 12-month SPIs are in the dry spell watch category. As such, longer-term impactful dryness concerns are heightened for Tobago and northwestern areas of Trinidad (see Figure 3). In general, dryness impacts are expected if the 12-month SPI is less than -1.0 (very dry or worse). Dryness impacts based on 12-month SPIs may include less than usual stream-flows, reservoir levels, groundwater flows and recharge.

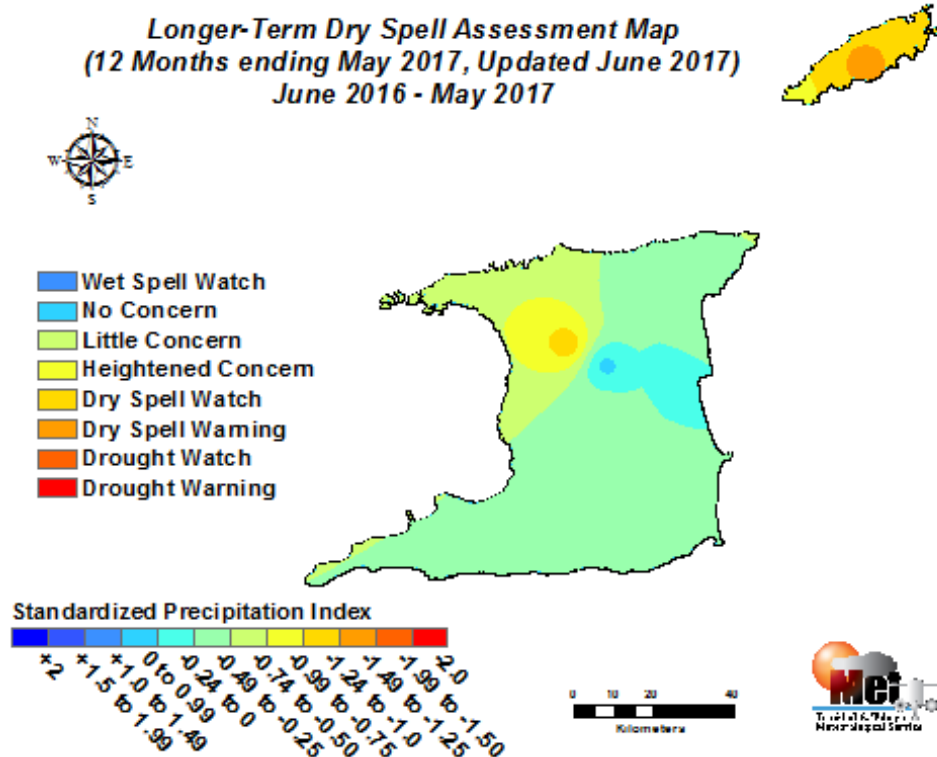


Figure 3