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

Concern for Impactful Dryness by April Still Reduced

3-Month Outlook (short-term):

- ❖ The Dry Spell Outlook for the three-month period ending April 2017 maintains reduced concerns for impactful drying across Trinidad and Tobago when compared with concerns four to six months ago.
- ❖ Taking into consideration rainfall from November 2016 to January 2017 and the standardized precipitation index outlook for February to April 2017, the Trinidad and Tobago Meteorological Service continues to see no short-term drought concerns developing for Trinidad and Tobago during this period but a dry spell watch is initiated for the western half of Trinidad (see figure 1).
- ❖ The outlook favours small decreases in the size of positive Standardized Precipitation Indices (SPI) in the eastern half of Trinidad and small increases in the size of negative SPI in the western half of the island. These changes suggest heightened concerns for impactful drying on the western half of Trinidad with little to no concern for the eastern half (see figure 1).
- ❖ The outlook continues to show improvement for Tobago with slight strengthening of positive SPIs in Tobago by the end of April, favoured. Overall, the forecasted SPIs for both islands are within the impactful dryness categories “little to heighten concern” (see figure 1).
- ❖ In keeping with this, the chance for extreme or unusual dryness (i.e. SPIs values less than -1.25) by the end of April 2017, as indicated by below normal percentages, remains small for both islands (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 around -1.0. As the SPI value becomes less than -1.0, the severity of impacts increases. A positive SPI reflects a rainfall surplus and hence relative wetness. Negative SPIs are used to characterise the severity of the dryness and as such, dry spells and drought categories.



Figure 1

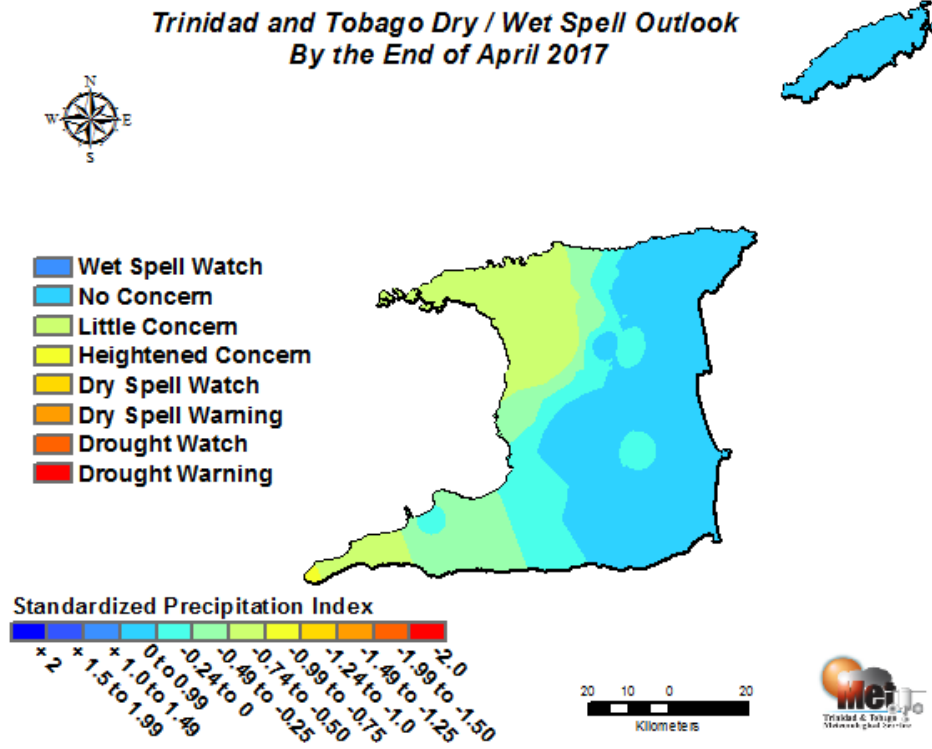
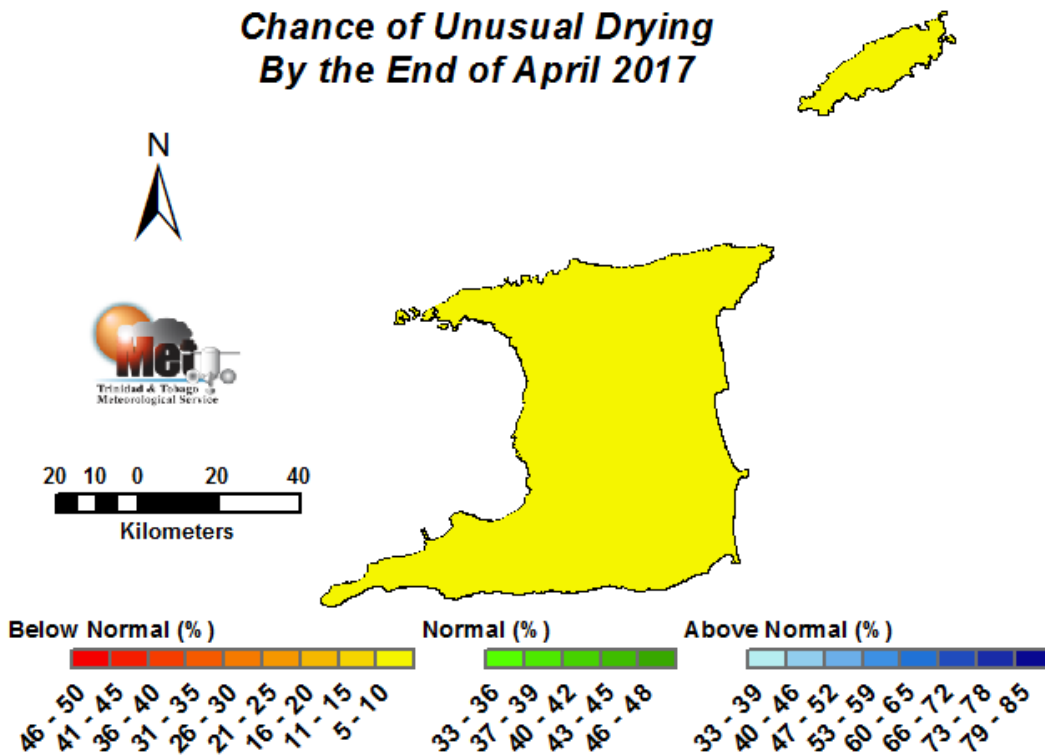


Figure 2



Longer-term (12-Month) Dryness Assessment:

- ❖ The longer-term dryness assessment based on 12-month SPIs used observation for February 2016 through to January 2017. This assessment shows areas of drier than usual conditions for the period considered and hence potential for long term dryness impacts (see Figure 2). Most of Trinidad received rainfall amounts that were in the near normal category while the negative SPIs across Tobago indicate drier than normal conditions existed for this 12-month period, with some areas being very dry overall (Figure 2). 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 reduced stream-flows, reservoir levels, and groundwater levels.

Figure 2

