

Rainfall and Temperature Outlook for Trinidad and Tobago May to July 2015 (MJJ)

Near-Average Rainfall Expected Over Trinidad and Tobago During MJJ

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Key Messages

- Rainfall in May to July (MJJ) is likely to be near normal in Trinidad and Tobago, while some areas in the northwest of Trinidad may experience below normal.
- In Trinidad, the percentage of average rainfall is likely to range between 86 % and 106 % of the long term average (LTA). While in Tobago, the percentage of average rainfall is likely to be approximately 97 % of the long term average (LTA).
- Total rainfall amounts for MJJ are likely to range between 378.0.0 mm in north-western Trinidad and 878.0 mm in north-eastern Trinidad. Rainfall amounts in Tobago are likely to range from 402.0 to 537.0mm.
- Warmer than average normal day and night-time temperatures are expected over all of the country.

Impacts and Response

- Likely impacts include: slight increase in ground water recharge, slight increase in surface water flow and water availability.
- The public, concerned agencies and ministries are advised to continue to conserve water and take measures to optimize on the effects of likely impacts.

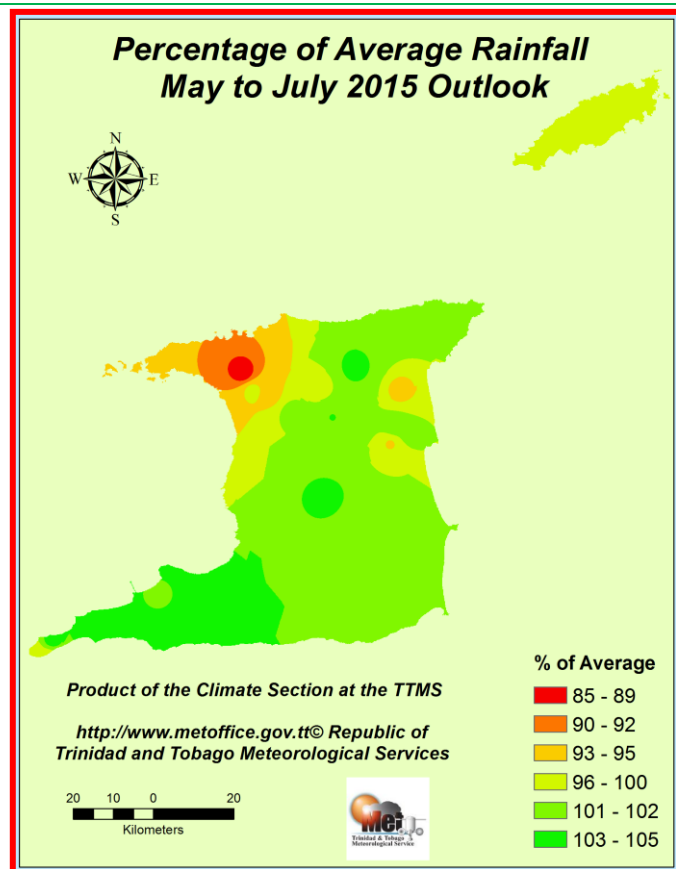


Figure 1.

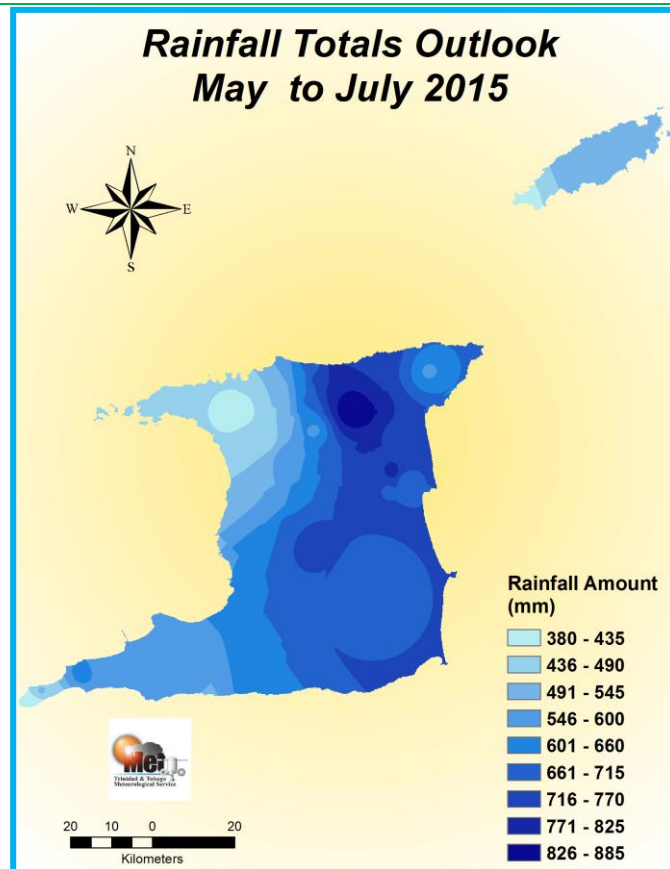


Figure 2.



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Rainfall and Temperature Outlook for Trinidad and Tobago

Page 2 of 3

Details of the Rainfall and Temperature Outlook for May to July 2015 (MJJ)

- The Trinidad and Tobago Meteorological Service (TTMS) Climate Early Warning (CEW) outlook for the period MJJ 2015 favours below average to near average rainfall across the country. Rainfall performance is likely to be strongest in Northeast Trinidad.
- The MJJ rainfall outlook shows the highest and most frequent odds favour near average rainfall totals (near average rainfall is 75 % to 125 % of the long term average-LTA) to occur over the country, see figure 1. Some areas in the northwest of Trinidad may experience below normal during the period (below average is less than 75% of the long term average-LTA).
- In districts where near average rainfall totals are likely to occur, the percentage of average rainfall is expected to range between 86% and 106% of the LTA in Trinidad and between 95% and 97% in Tobago (figure 1).
- On a monthly scale, rainfall in the month of May is expected to be below to near average in the country, while in June and July it is expected to be near to above average.
- Total rainfall amounts for MJJ are likely to range from as low as 378 mm in north-western Trinidad to 878 mm in some districts in north-eastern Trinidad, while total rainfall amounts in Tobago during the period are likely to range from 402 mm in south-western areas to 537 mm in north eastern areas (figure 2).
- Hotter than average normal day and night temperatures are expected for all of the country during May to July 2015. Maximum temperatures are expected to average near 32.4⁰ C and range between 31.7⁰ C and 32.8⁰ C over the period. Minimum temperatures are expected to average near 24.2⁰ C and range between 23.8⁰ C and 24.5⁰ C in most areas.

Preliminary Outlook August to October 2015:

- Near average to above average.

Likely Outcome

Likely impacts of near average rainfall and warmer than average temperatures include:

- Reduced browning of weeds, pastures and some trees.
- Slight increase in ground water recharge.
- Slight increase in surface water flow and water availability.
- Slight reduction in surface dryness (dusty) due to increased evaporation and transpiration.
- Increased risk of vector borne illnesses.
- Increased risk of pest and diseases.
- Slight reduction in the duration and occurrence of consecutive very hot days.

How Should You Respond?

- The public is advised to conserve, store and manage water in a sustainable manner.
- Farming communities are encouraged to use methods that would reduce the impact of pest and diseases.
- Relevant agencies and ministries are advised to take measures to mitigate the potential impacts from near average and warmer than average temperatures.



Trinidad & Tobago Meteorological Service

Rainfall and Temperature Outlook for Trinidad and Tobago

Page 3 of 3

Climatic Influences on Outlook

The seasonal rainfall and temperature outlook considered the understanding that local and regional Sea Surface Temperatures (SST) changes, along with SST conditions external to the region can provide useful guidance for short and long term seasonal rainfall outlook for Trinidad and Tobago. The seasonal outlook employed a method which combined output from dynamical models, statistical models, and local expert analysis, judgment and knowledge of the climate system.

Current Climatic Influences :

- ❖ During January to April 2015, waters east of Trinidad and Tobago continued to cool while sea surface temperature (SST) anomalies remained positive. Forecasted SSTs for waters east of the islands favour for the most part, near average to above average SSTs for the MJJ season.
- ❖ Towards the end of April 2015, most of the indicators used to monitor the El Nino-Southern Oscillation (ENSO) in Central Tropical Pacific Ocean showed El Nino conditions are likely to continue for the May to July 2015 period. SSTs in the Central tropical Pacific were above average and are forecasted to maintain El Nino conditions for the MJJ season. Trade wind speed strengths in the tropical Pacific Ocean are reduced with low-level westerly anomalies present. Most ENSO monitoring models favour weak El Nino conditions to continue into MJJ. El Nino conditions in the Central tropical Pacific tend to influence rainfall performance negatively in Trinidad and Tobago's vicinity.
- ❖ Due to the weak strength, significant impacts associated with El Nino are not anticipated. The El Nino signals would have a delayed influence on the region, hence El Nino signature weather features are likely to continue beyond MJJ in the vicinity of Trinidad and Tobago.
- ❖ Assessment of the North Atlantic Oscillation (NAO) index shows that part of the first week in May will be in a negative phase and is forecasted to become positive as it nears the middle of May. When in its positive phase, the NAO tends to enhance the northeast trade winds, leading to cooler sea surface temperatures and reduced rainfall in the vicinity of Trinidad and Tobago.
- ❖ Current analysis of the Madden Julian oscillation (MJO) shows that during the last week of April it was in a phase which did not enhance rainfall near Trinidad and Tobago. The MJO is not expected to influence rainfall significantly during the first two weeks of the month and will continue to be in a phase that is unfavourable to rainfall in Trinidad and Tobago for the remainder of May.
- ❖ Several dynamical climate models surveyed are in good agreement with the TTMS statistical climate model forecast and local expert analysis for near average rainfall, as most likely for the AMJ period in the vicinity of Trinidad and Tobago. This increases the TTMS's confidence in the outlook.

For more information feel free to contact the Climate Section @ Telephone: 1-868-669-5465; E-Mail: dirmet@tstt.net.tt , or visit our website www.metoffice.gov.tt

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