Date of Issue: 01/05/2017

Increased Chances for Near to Below Normal Rainfall during May to July 2017

Key Messages

- ✓ May to July (MJJ) rainfall is likely to be near normal to below normal over most of Trinidad and Tobago;
- ✓ May is likely to be near normal over most of the country except in southwest Trinidad and northeast Tobago where conditions are likely to be drier than normal. The month is likely to be the driest month of the three-month period;

  MJJ 2017 rainfall totals are likely to range between 340mm and 850mm in Trinidad and between 335mm and 580mm in Tobago;
- ✓ This rainfall pattern is most likely due to near average sea surface temperatures (SSTs) in and around Trinidad and Tobago due to recent cooling El Nino-Southern Oscillation (ENSO) neutral conditions but on the warm side in the equatorial eastern and central Pacific Ocean;
- ✓ Both day and night temperatures for MJJ are predicted to be warmer than normal for all of Trinidad and Tobago.

Likely Impacts

- ✓ Near normal to below normal rainfall during the MJJ can still cause severe flooding, but the potential is reduced;
- ✓ Increase in surface water ponding, which can lead to increase in mosquito breeding sites;
- ✓ Drier than normal to near normal rainfall usually maintains or reduce water reservoir levels, decrease surface water flows and water availability.

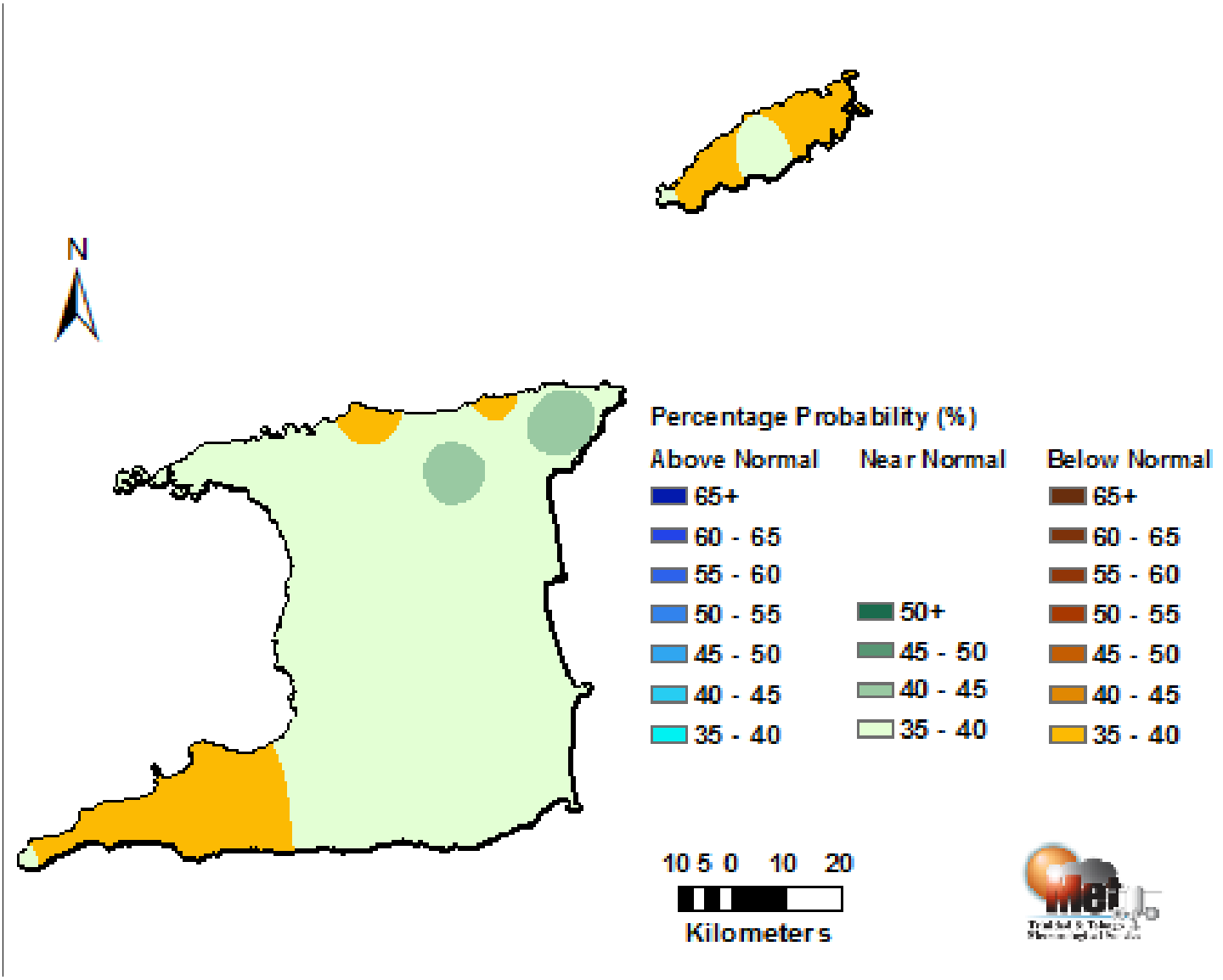

Figure 1: Category of rainfall likely for May–July (MJJ) 2017 with the highest chance of occurrence expressed as probabilities represented on the map. Blue areas indicate places with an increased chance for above normal rainfall, brown areas show an increased chance for below normal rainfall, while green areas show an increased chance for near normal rainfall. Normal is defined by the rainfall that was observed in middle one-third of the MJJ seasons during the historical period used to produce the outlook.

- The rainfall outlook for May to July (MJJ) 2017 favours near normal accumulated rainfall totals across most of Trinidad but the chances are highest for below normal rainfall totals in southwest Trinidad and large portions of Tobago. Chances are highest for near normal rainfall in small areas of northeast Trinidad.

- Probabilities are lowest for above normal rainfall in southwest Trinidad where the chances range between 35% and 39%; elsewhere the chances equal or exceed 40%.

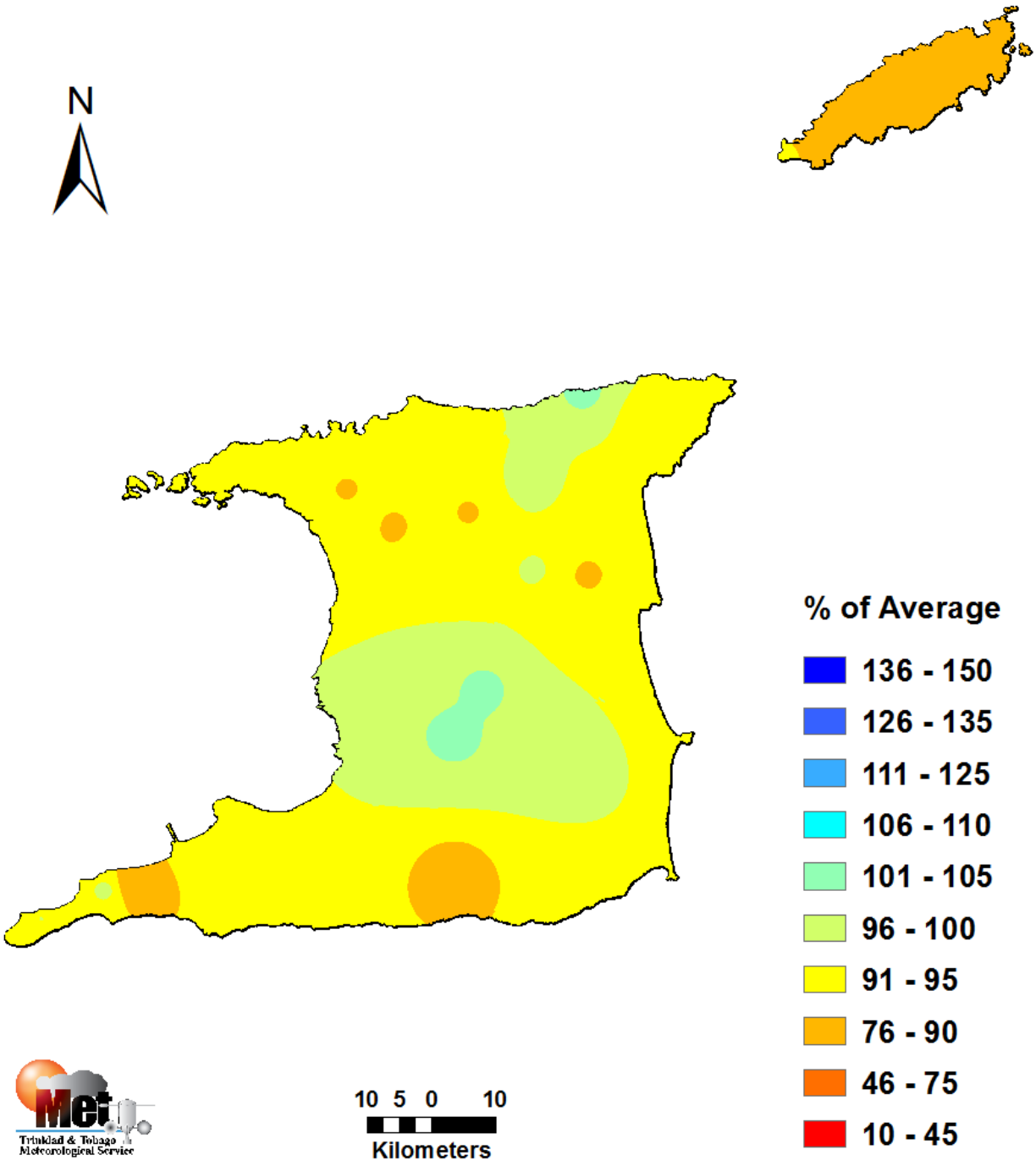

Figure 2: Percentage of average rainfall totals with the best chance of occurring for May to July 2017

- ✓ The percentage of average rainfall totals for MJJ that are most likely to occur range between 84% and 107% of the long term average (LTA) in Trinidad and between 80% and 102% of the LTA in Tobago.

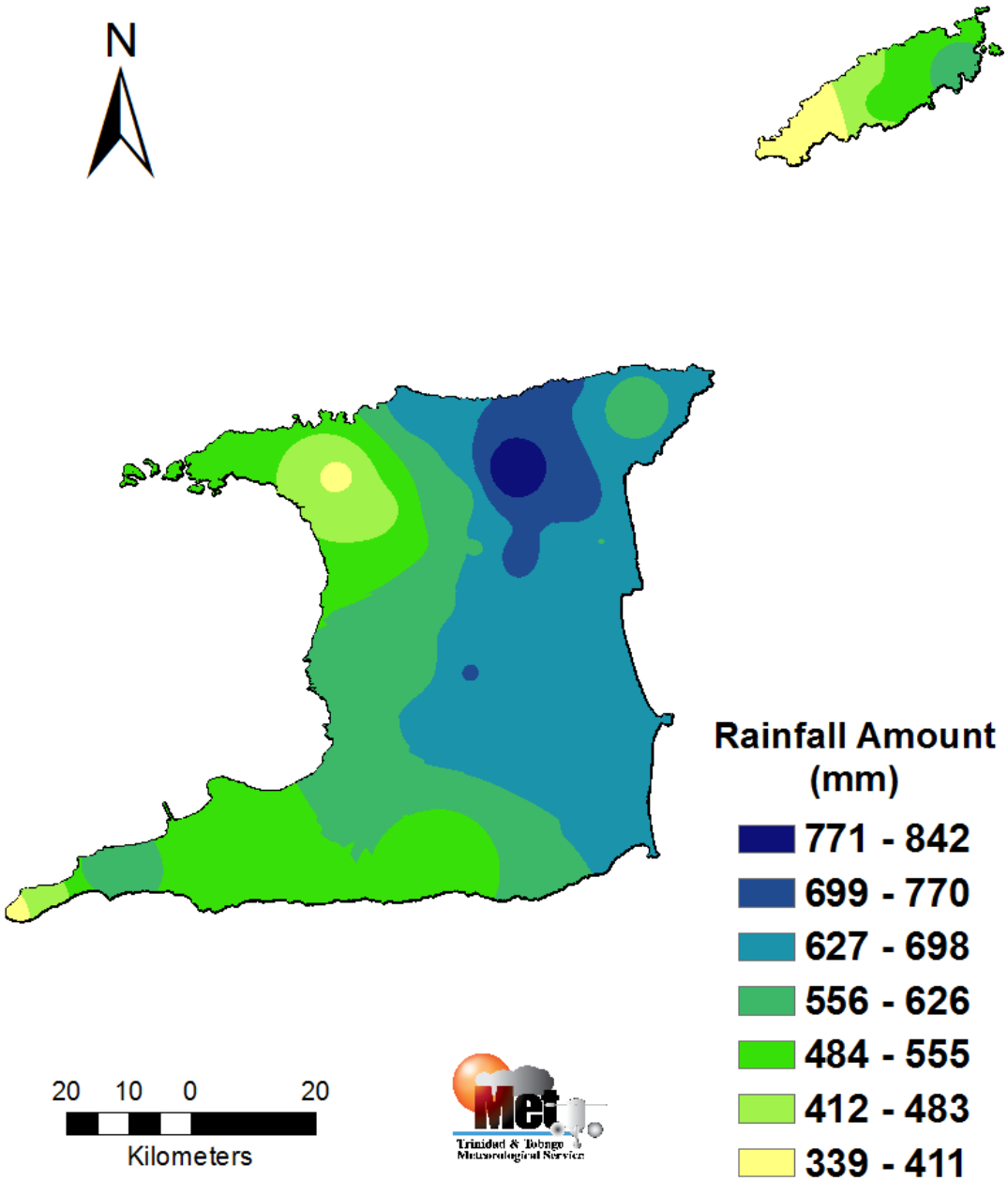

Figure 3: The TTMS outlook of possible rainfall accumulated totals for May to July 2017, with the highest chance of occurring.

- ✓ The largest rainfall accumulated totals for MJJ 2017 can reach as high as 850mm in areas such as Valencia, Sangre Grande and Plum Mitan in east Trinidad and near 580mm in Kings Bay and environs in northeast Tobago

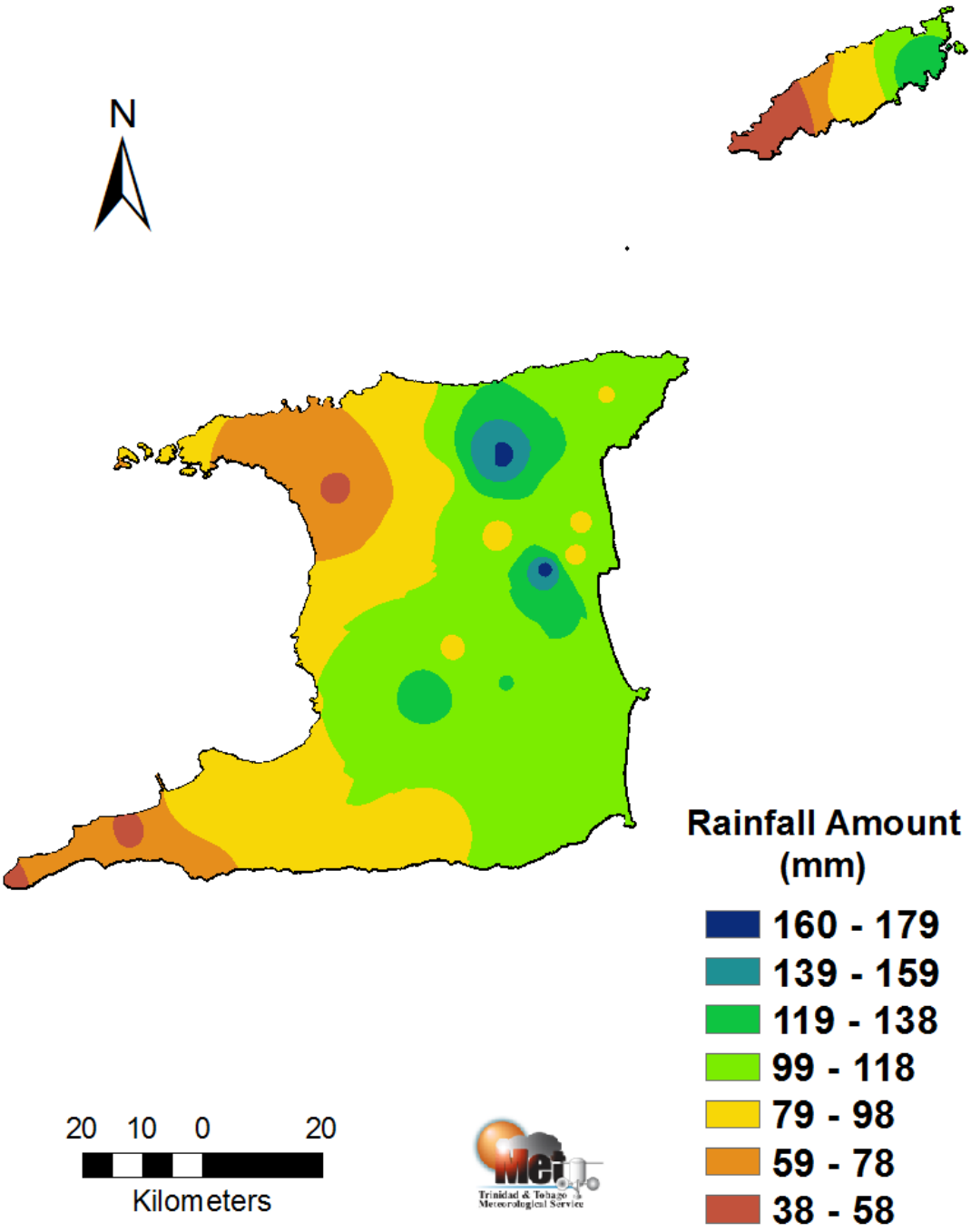

Figure 4: Possible rainfall totals for May 2017, with the highest chance of occurring.

- ✓ May is likely to be the driest month within the MJJ period with the best chance for rainfall totals between 35.0mm and 180.0mm in Trinidad and between 38.0mm and 130.0mm in Tobago.

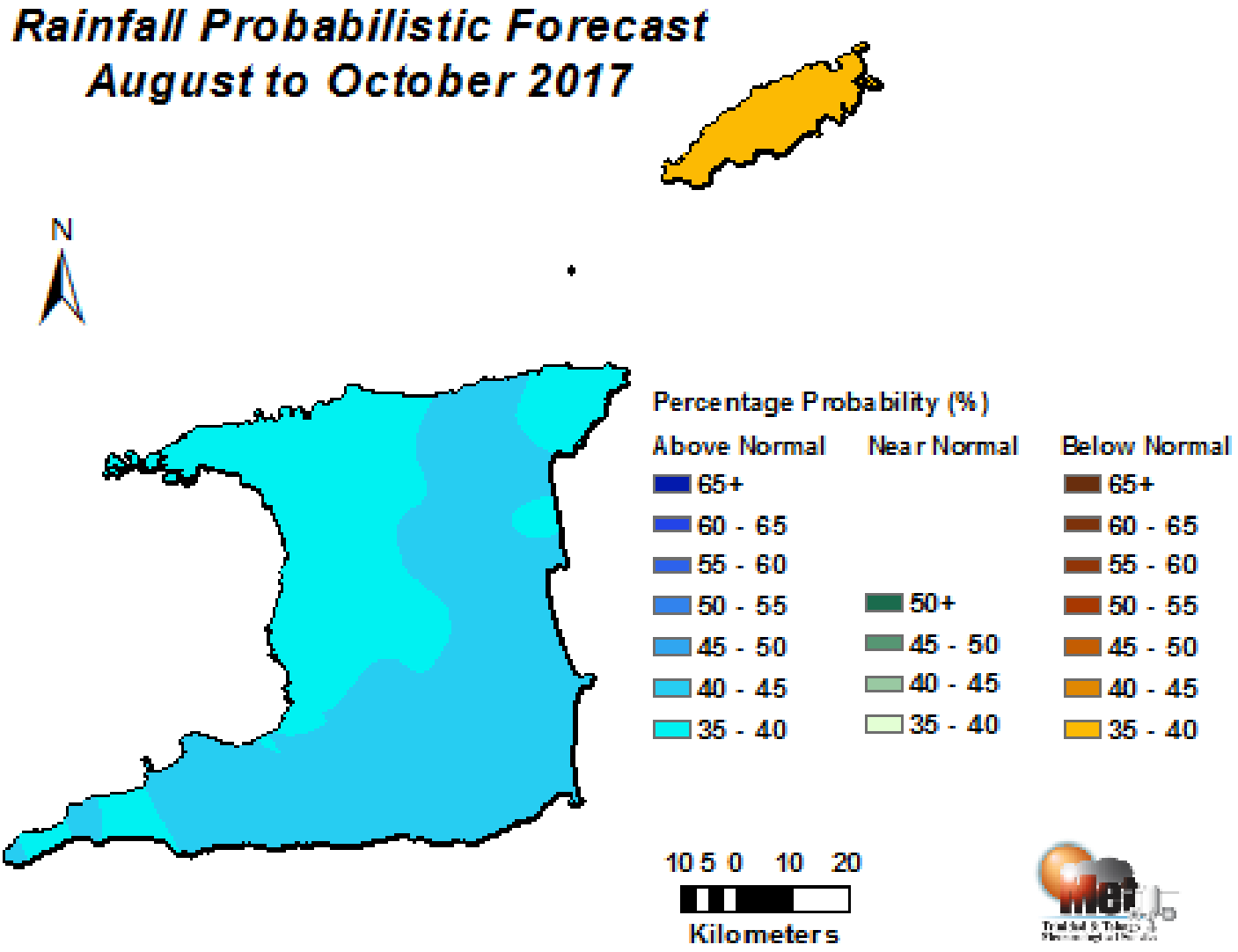

Figure 5. Category of rainfall likely for August to October (ASO) 2017 with the highest chance of occurrence expressed as probabilities. Blue areas indicate places with an increased chance for above normal rainfall, brown areas show an increased chance for below normal rainfall, while green areas show an increased chance for near rainfall. Normal is defined by the rainfall that was observed in middle one-third of the ASO seasons during the historical period used to produce the outlook.

The TTMS outlook for ASO 2017 favours above normal rainfall across all of Trinidad and below normal over all of Tobago.

The Temperature Outlook Favours Warmer than Normal Temperatures for May to July 2017

- ✓ Both day and night temperatures are forecasted to be slightly warmer than normal over Trinidad and Tobago;
- ✓ Chances are moderate (60%) for mean maximum temperatures to be warmer than average (greater than 31.7^{o}C in Trinidad and 30.9^{o}C in Tobago);
- ✓ Chances are high (75%) for night-time minimum temperatures to be warmer than average (greater than 23.9^{o}C).
- ✓ **May:** High chance (75%) for maximum temperatures warmer than 32.5^{o}C at Piarco, warmer than 31.3^{o}C at Crown Point;
- ✓ **June:** Moderate chance (60%) for maximum temperatures warmer than 32.0^{o}C at Piarco, and 31.0^{o}C at Crown Point.

Likely Outcomes for Near to Below Normal Rainfall and Warmer than Normal Temperatures

- ✓ Increase in flooding potential still exist;
- ✓ Increase in surface water ponding can increase mosquito breeding sites, leading to enhanced chances for more incidences of vector borne diseases;
- ✓ Increase in rainfall should improve water reservoir levels, increase ground water recharge, surface water flows and water availability in general ;
- ✓ More rainfall occurrences can be disruptive to localized travel and outdoor activities;
- ✓ Small reduction in surface dryness (dusty conditions);

  Increase in rainfall mixed with warmer than normal conditions tend to promote quick multiplication of some agricultural pests, diseases and fungal growth;
- ✓ A normal start to the 2017 wet season is likely.

How Should You Respond?

Met Service advises that:

- ✓ Proper preparation especially for persons in at risk areas;
- ✓ Clean drains and surrounding areas of debris, remove or ask agencies to remove dry branches from trees overhanging electrical wires and property, remove nearby ponding containers, be sand- bag ready;
- ✓ Conserve, store and manage water in a safe and adequate manner. Use water wisely; cover water collecting containers;
- ✓ Be watchful for extreme rainfall events especially on extremely hot days when the winds are light;
- ✓ Relevant agencies and ministries are advised to take measures to safeguard against the negative effects of impactful dryness.
- ✓ Be vigilant and visit the Met. Service website regularly to keep up to date with local weather changes (www.metoffice.gov.tt); also download our free mobile app.

Climatic Influencers and Context of the Outlook

- ✓ Sea surface temperatures (SSTs) in waters surrounding Trinidad and Tobago have cooled during the last month but remain warmer than average and this is favoured to continue into June 2017. The overall effect is likely to be negative on local rainfall.
- ✓ Tropical Pacific sea surface temperatures (SSTs) have warmed since the start of the year and are now warmer than average. As such, ENSO-neutral conditions but on the warm side is present. The majority of models favour warming to continue over the next three months. The overall effect is likely to be negative on local rainfall.
- ✓ The North Atlantic Oscillation (NAO) remained in the positive phase during most of April but has been trending towards its negative phase recently. The overall influence should be negative on local rainfall.
- ✓ A weak phase of the rainfall producing phase of the Madden Julian Oscillation (MJO) is encroaching on the region and is likely to have a small positive influence on May rainfall during the first two weeks.
- ✓ Multiple competing climatic factors are at play without any dominating. The current outlook reflects this.