Above Normal Rainfall Most Likely for April to June 2017

Key Messages

- ✓ April is likely to be wetter than normal but still likely to be the driest month of the three-month period April to June (AMJ) 2017;

  AMJ 2017 rainfall outlook shows the best chances are for above normal accumulated rainfall totals across Trinidad and Tobago;

- ✓ The AMJ chances are lowest for above normal rainfall amounts over small areas of southwest Trinidad;

- ✓ This rainfall pattern is most likely due to warmer than usual sea surface temperatures (SSTs) in and around Trinidad and Tobago and 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 are predicted to be warmer than normal during AMJ.

Likely Impacts

- ✓ Above normal rainfall during the AMJ season increases flooding potential during May and June;

- ✓ Increase in surface water ponding which can lead to increase in mosquito breeding sites;

- ✓ Wetter than average conditions usually improve water reservoir levels and increase surface water flows and availability.

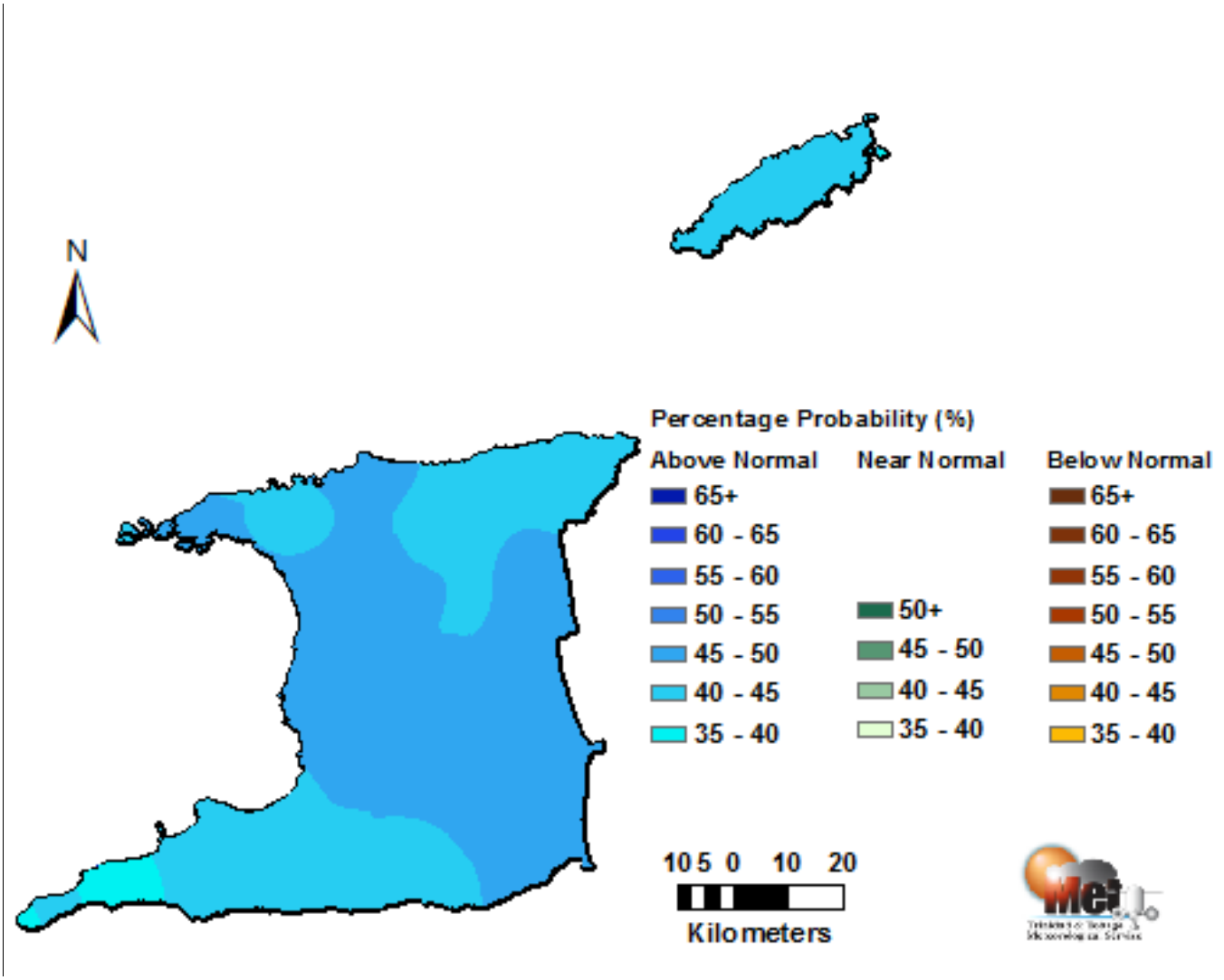

Figure 1: Category of rainfall likely for April–June 2017, with the highest chance of occurrence expressed as probabilities represented on the map. Blue areas indicate places with an increased chance for above normal rainfall, brown areas show an increased chance for below normal rainfall, while green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

- The TTMS rainfall outlook for April to June (AMJ) 2017 favours above normal accumulated AMJ rainfall totals for all Trinidad and Tobago.
- This rainfall pattern while not always the case is typical of rainfall totals observed in Trinidad and Tobago during previous neutral El Niño-Southern Oscillation (ENSO) late dry and transition seasons, when sea surface temperatures surrounding Trinidad and Tobago were warmer than average;
- 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 %.

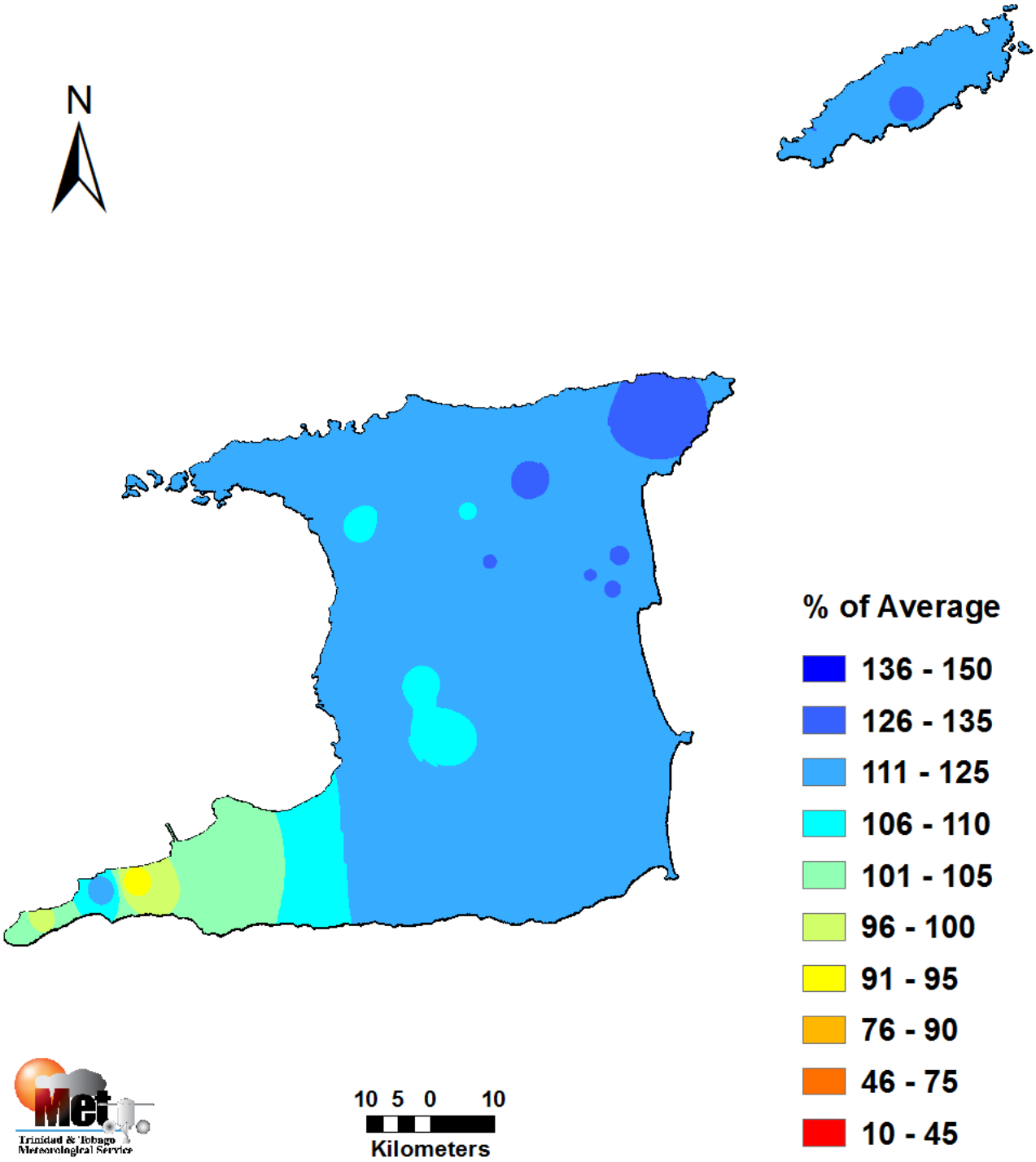

Figure 2: Percentage of average rainfall totals with the best chance of occurring for April to June 2017

- ✓ The possible percentage of average rainfall totals for AMJ ranges between 91% and 130% of the long term average (LTA) in Trinidad and between 112 % and 126% of the LTA in Tobago.

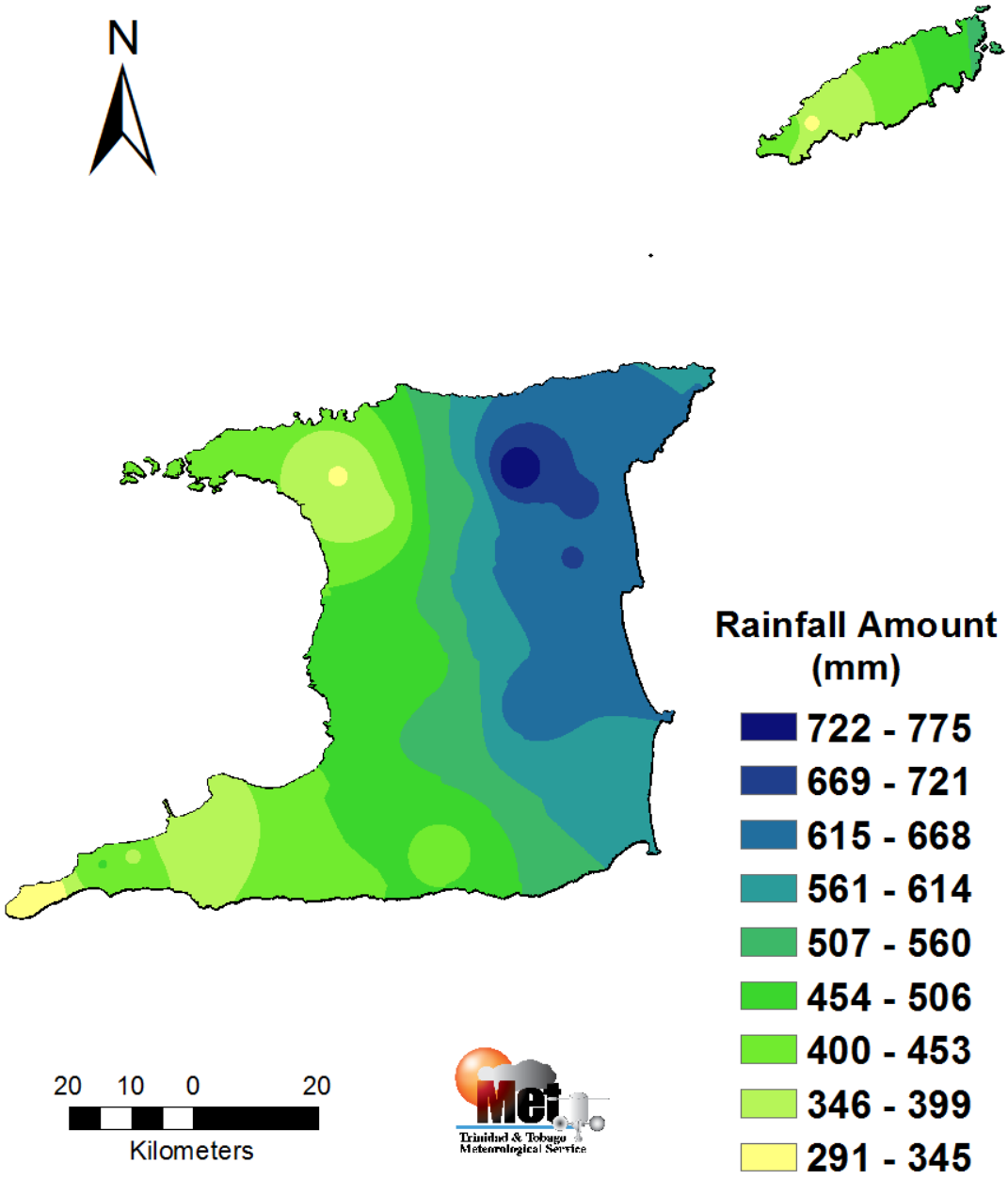

Figure 3: The TTMS outlook of possible rainfall accumulated totals for April to June 2017, with the highest chance of occurring.

- ✓ The largest rainfall accumulated totals for April to June 2017 are expected to occur in areas such as Valencia, Sangre Grande and Plum Mitan and other areas in eastern and northeastern Trinidad where accumulated totals are likely to reach 775.0 mm and near Mount Saint George and northeast in Tobago where they are likely to reach 600.0 mm.

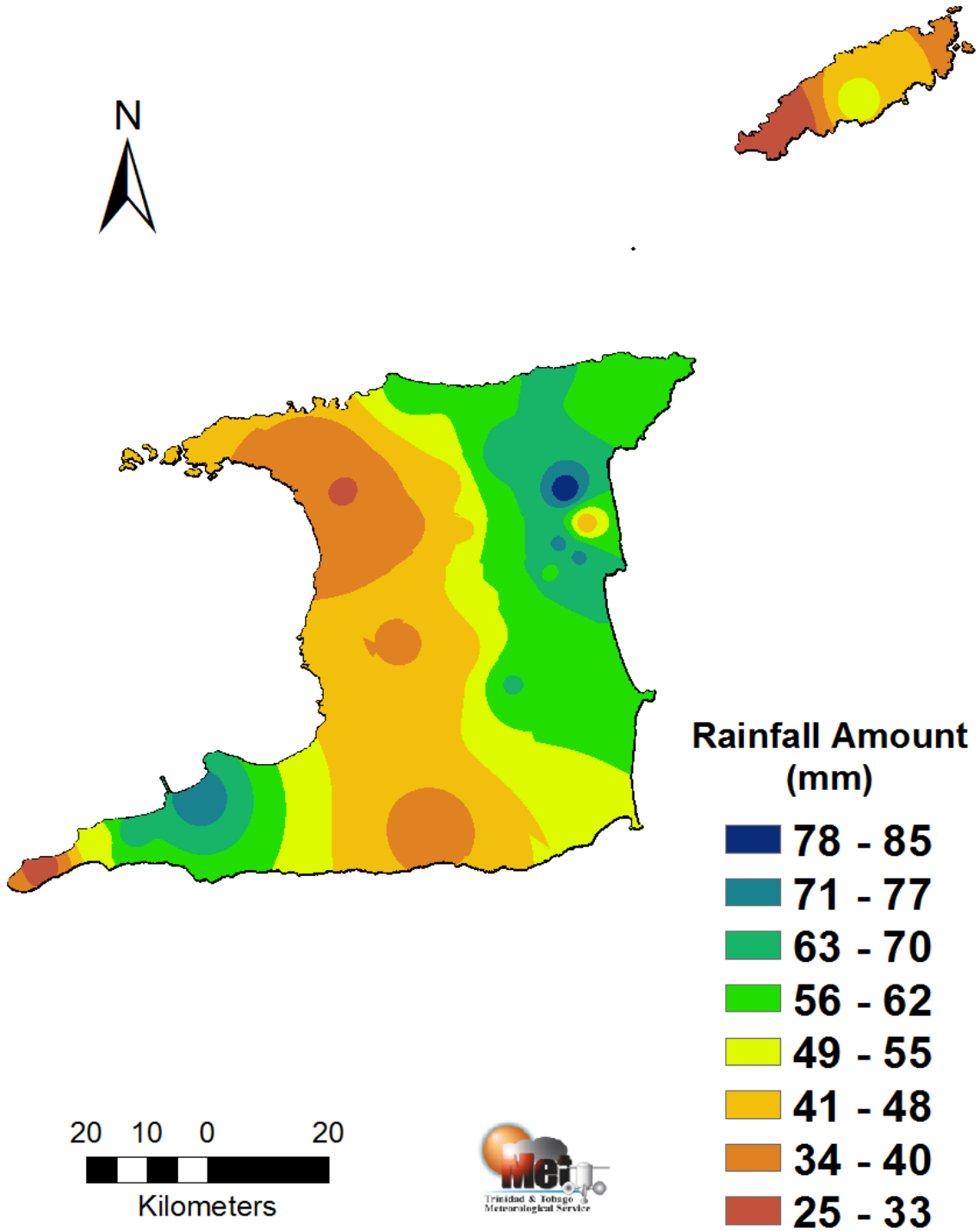

Figure 4: Possible rainfall totals for April 2017, with the highest chance of occurring.

- ✓ The month of April is likely to be the driest month within the AMJ period with the best chance for rainfall totals between 25.0 mm and 85.0 mm in Trinidad and between 25.0mm and 55.0 mm in Tobago.

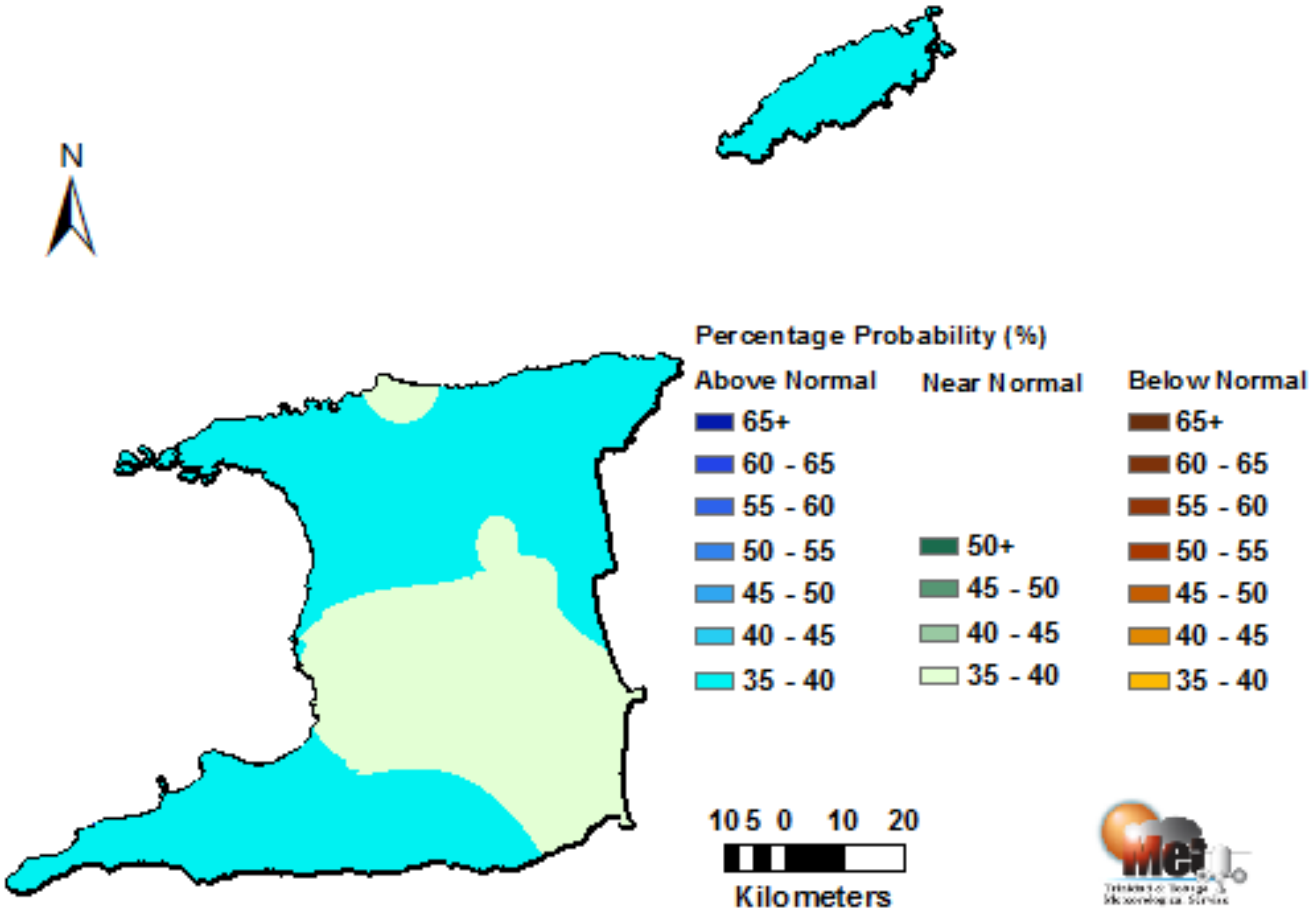

Figure 5. Category of rainfall likely for July to September (JAS) 2017 with the highest chance of occurrence expressed as probabilities. Blue areas indicate places with an increased chance for above normal rainfall, brown areas show an increased chance for below normal rainfall, while green areas show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

The TTMS outlook for JAS 2017 favours near to above normal rainfall across Trinidad and above normal over all of Tobago.

The Temperature Outlook Favours Warmer than Normal Temperatures for April to June 2017

- ✓ Both day and night temperatures are forecasted to be slightly warmer than normal over Trinidad and Tobago;
- ✓ Chances are high (80 %) for mean maximum temperatures to be warmer than average (greater than 32.0°C in Trinidad and 31.1°C in Tobago);
- ✓ Chances are high (75 %) for night-time minimum temperatures to be warmer than average (greater than 23.8°C.
- ✓ **April:** High chance (80 %) for maximum temperatures warmer than 32.0°C at Piarco, warmer than 31.0°C at Crown Point;
- ✓ **May:** Moderate chance (60%) for maximum temperatures warmer than 32.3°C at Piarco, and 31.3°C at Crown Point.

Likely Outcomes for Above Normal Rainfall and Warmer than Normal Temperatures

- ✓ Above normal rainfall during the AMJ season increases flooding potential during May and June;
- ✓ Increase in surface water ponding, which can increase mosquito breeding sites, and lead to enhanced chances for more incidences of vector borne diseases;
- ✓ Increased rainfall, mixed with warmer than normal conditions tend to promote quick multiplication of some agricultural pests, diseases and fungal growth;
- ✓ Wetter than average conditions will improve water reservoir levels, increase ground water recharge, surface water flows and water availability;
- ✓ Wetter than average conditions can be disruptive to localized travel and outdoor activities;
- ✓ 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 dry branches from nearby trees, 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 extremely hot days and short hot spells during early April. Seek shade and drink lots of water;
- ✓ 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 app.

Climatic Influencers and Context of the Outlook

- ✓ Warmer than average SSTs in waters surrounding Trinidad and Tobago are forecasted to continue into June 2017 and this increases the potential for local rainfall occurrence.
- ✓ Neutral El Niño-Southern Oscillation (ENSO) conditions on the warm side currently exist in the central and east-central Pacific Ocean. Near to above average SSTs are favoured to continue warming during the next three months with increasing chance for El Niño to develop during the first half of the 2017 wet season.
- ✓ The North Atlantic Oscillation (NAO) remained in the positive phase during most of March but has been trending towards its negative phase. This is likely to be short-lived. With the positive phase dominating, the NAO is likely to have a negative effect on local rainfall.
- ✓ The Madden Julian Oscillation (MJO) is current weak and is likely to have a small positive influence on April's rainfall.
- ✓ Multiple competing climatic factors are at play; however, the current outlook reflects warmer than average sea surface temperatures (SSTs) in waters east and around Trinidad and Tobago as well as near average to warmer than average SSTs in the Tropical Pacific Ocean.