

# Dry Season Climate Outlook

## (January - May 2019)

“Towards More Informed Preparation”

**Climatologist      Kenneth Kerr**



# T&T 2018 Dry Season Climate Influencers(Drivers)

**El Niño-Southern Oscillation (ENSO)**



**Sea Surface Temperatures around T&T**



**Arctic Oscillation (AO)**

**North Atlantic Oscillation (NAO)**

**Madden-Julian Oscillation (MJO)**

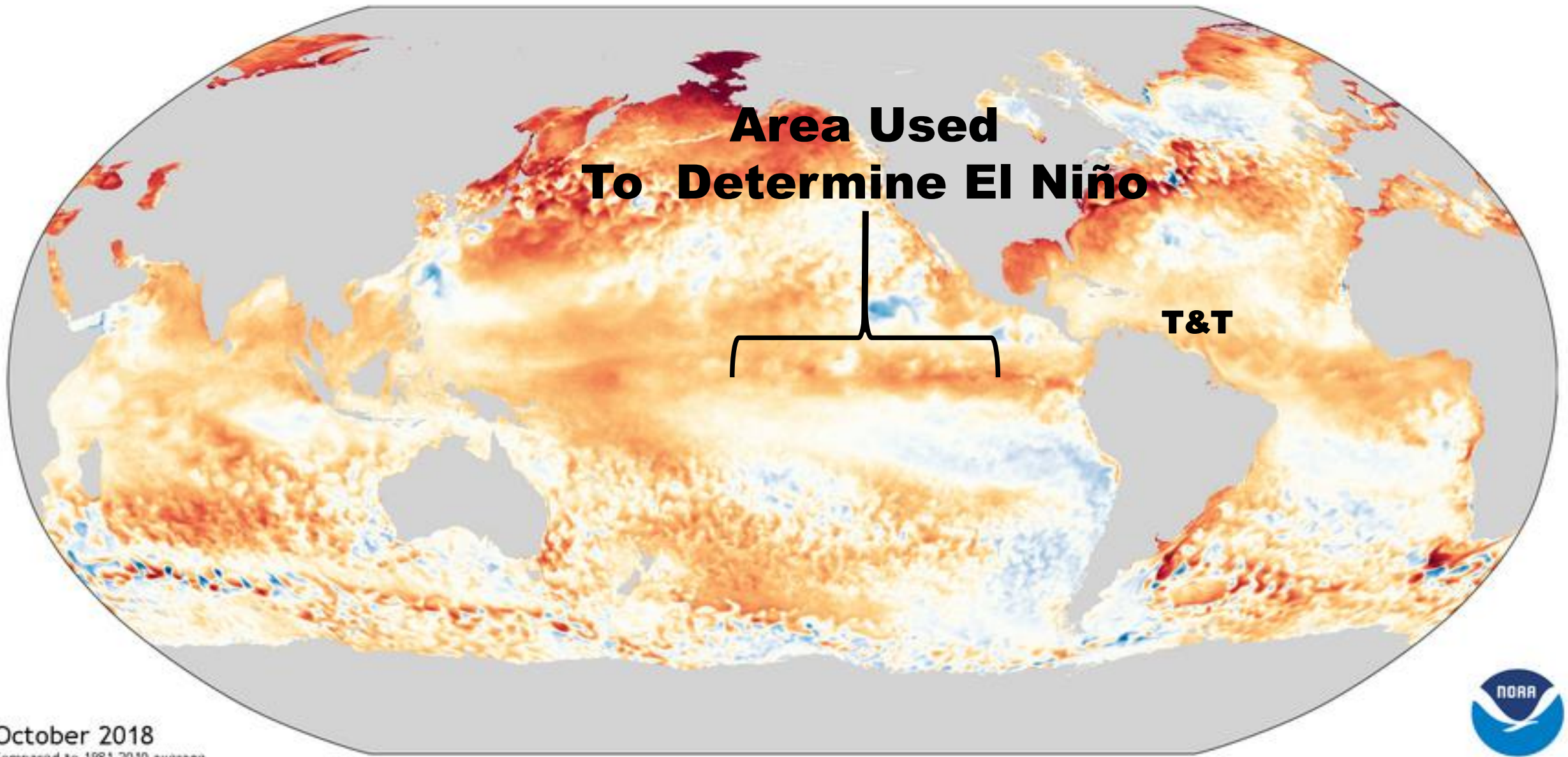
# Area Used To Determine El Niño

T&T

January 2018  
Compared to 1981-2010 average







**Area Used  
To Determine El Niño**

**T&T**

October 2018  
Compared to 1981-2010 average



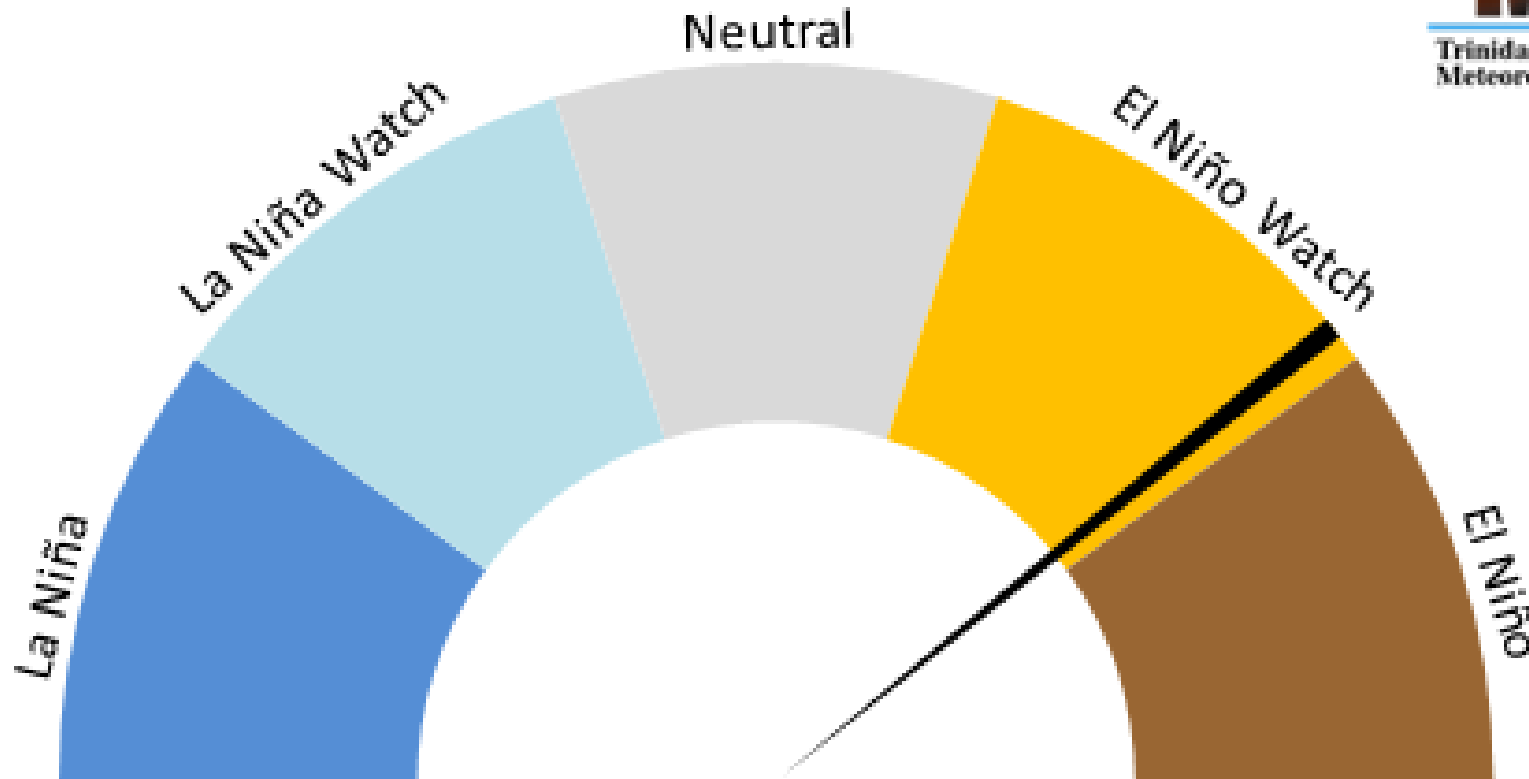
◀ Cooler

Warmer ▶

# El Niño/La Niña Watch

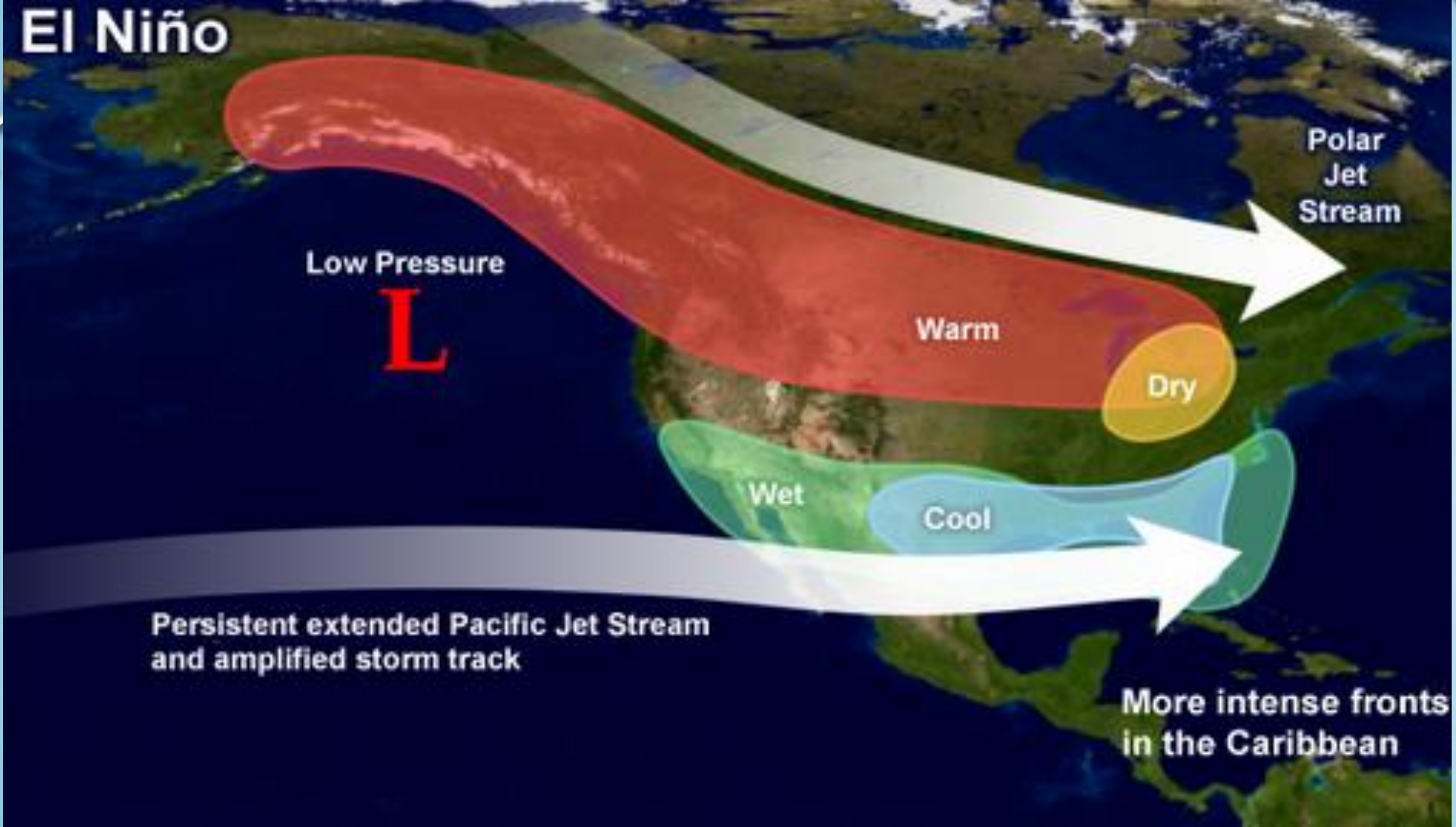


## ENSO OUTLOOK



**Main Climate Influencer**





**During El Niño winters storms track further south than usual**

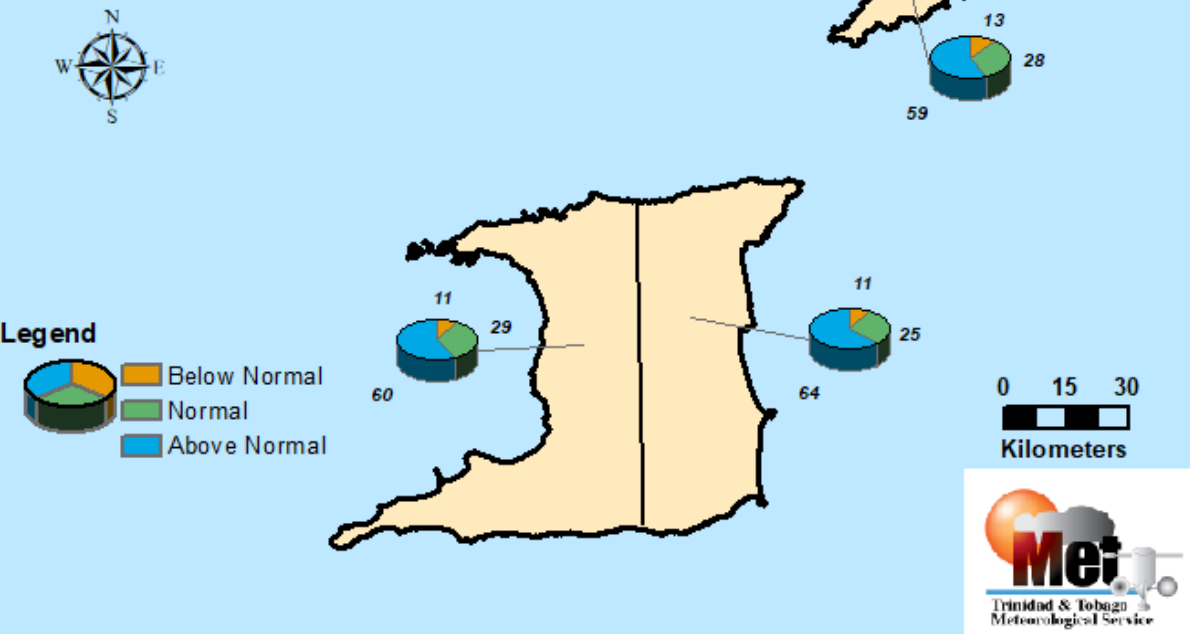
# HAZARDOUS SEAS OUTLOOK

- ❑ **Likely increased frequency of long-period swell events over the southern Caribbean**
- ❑ **Higher than usual number of rough and hazardous sea events for Trinidad and Tobago**
- ❑ **Greater potential for coastal losses and damages**

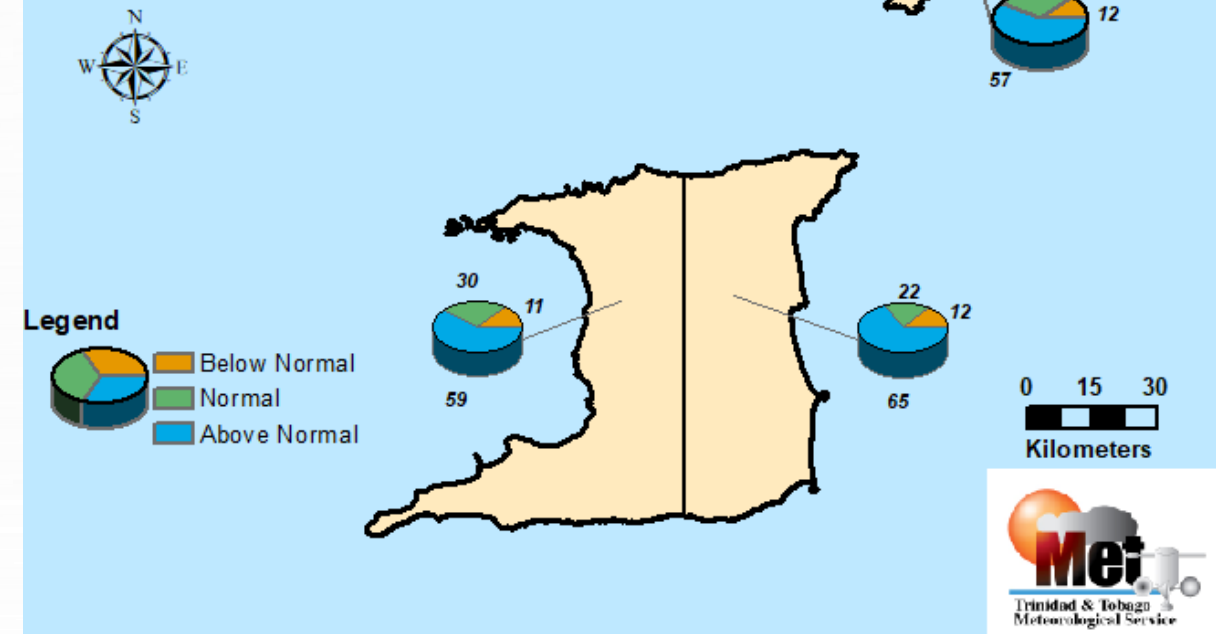


# 2019 DRY SEASON TEMPERATURE OUTLOOK

Probability Maximum Temperature  
Dry Season 2019



Probability Minimum Temperature  
Dry Season 2019



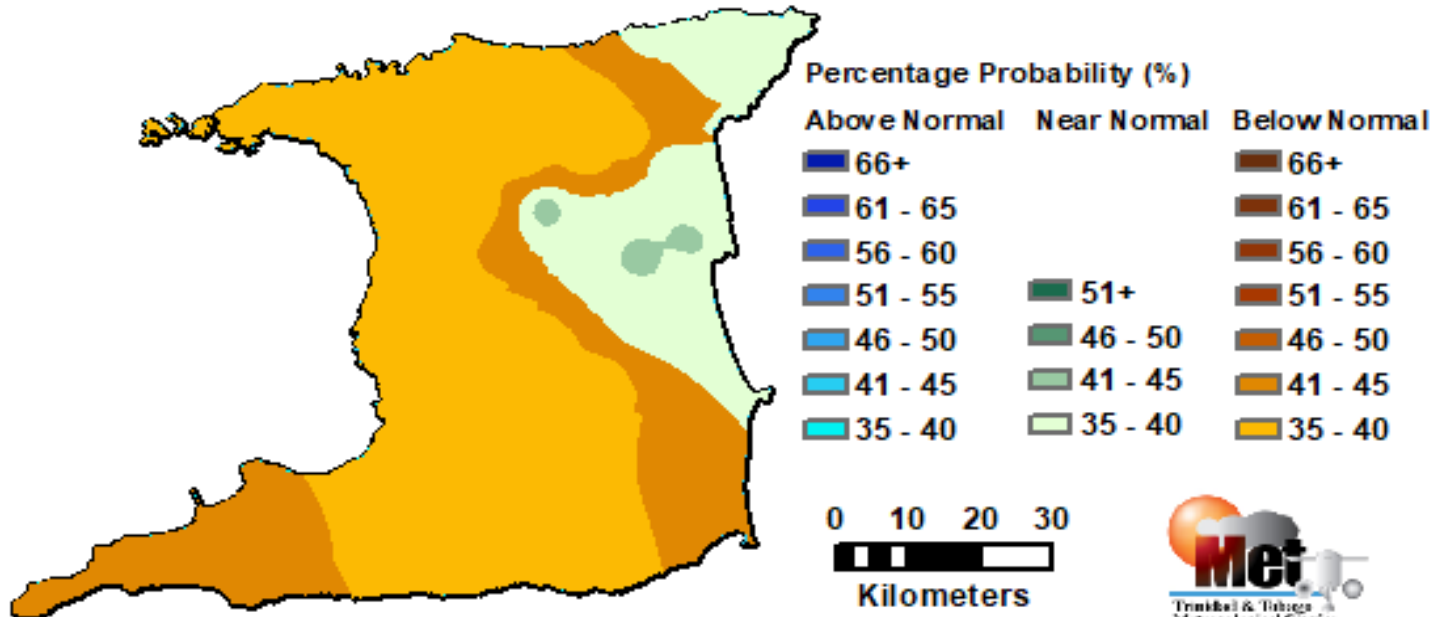
- ❑ **WARMER-THAN-NORMAL CONDITIONS MOST LIKELY FOR BOTH DAY & NIGHT TEMPERATURES**
- ❑ **LARGER THAN USUAL NUMBER OF HOT DAYS DURING LATE FEBRUARY TO MAY (GREATER THAN 34°C TRINIDAD, 32°C TOBAGO)**
- ❑ **SINGLE-DAY EXTREMES AT SPECIFIC POINT AND LONG-DURATION WARM SPELLS ARE ENHANCED**



# HARSH 2019 DRY SEASON AHEAD

## DRY SEASON RAINFALL IS LIKELY TO BE AS SCARCE AS **GOLD**

Probability of Most Likely Category of Rainfall  
Dry Season 2019



**SUPPRESSED RAINFALL EXPECTED**

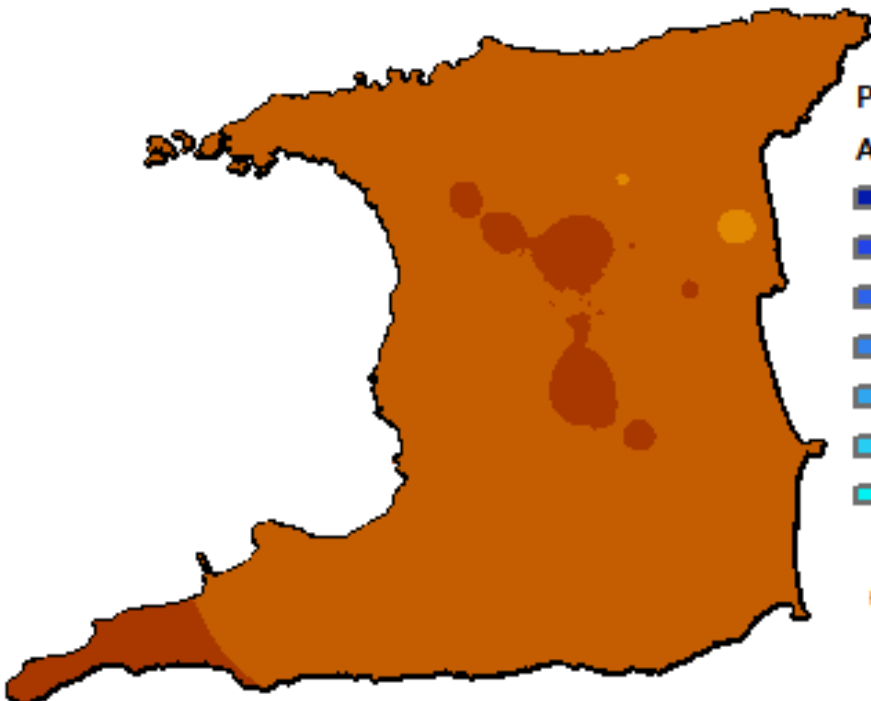
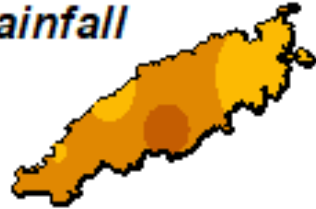
**NEAR TO BELOW NORMAL RAINFALL**

**MOST AREAS DRIER THAN USUAL**

**FEW AREAS JUST AS DRY AS USUAL**

# SUB-SEASON : JANUARY TO MARCH

Probability of Most Likely Category of Rainfall  
January to March 2019



Percentage Probability (%)

Above Normal	Near Normal	Below Normal
66+		66+
61 - 65		61 - 65
56 - 60		56 - 60
51 - 55	51+	51 - 55
46 - 50	46 - 50	46 - 50
41 - 45	41 - 45	41 - 45
35 - 40	35 - 40	35 - 40

0 10 20 30



Kilometers



ENHANCED CHANCES FOR BELOW NORMAL RAINFALL

STRENGTHENING OF DRYNESS IN FEBRUARY AND MARCH

## IMPACTS:

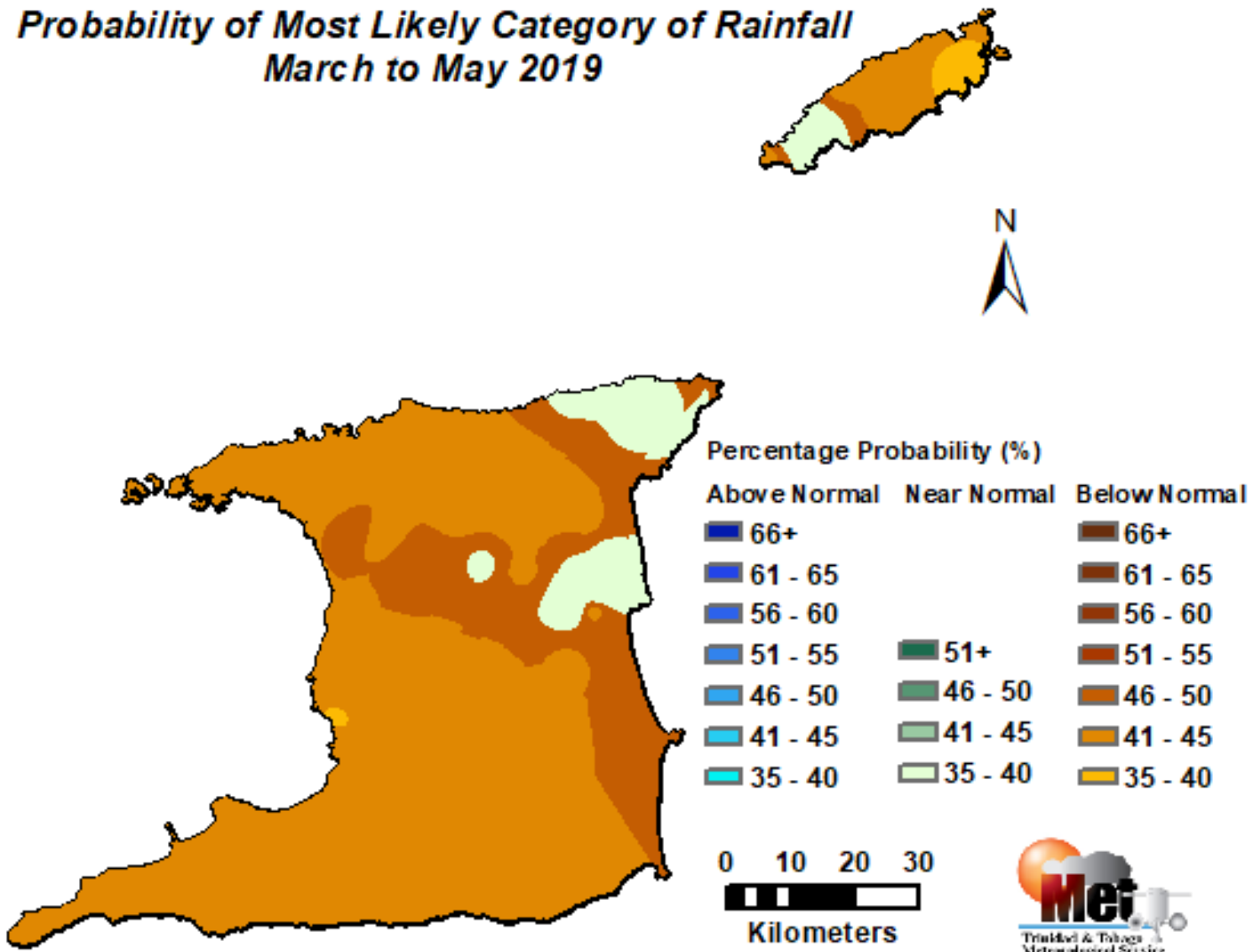
EXTREME DRYNESS

PROLONGED DRY SPELLS

SHORT-TERM DROUGHT-LIKE CONDITIONS BY LATE MARCH

# SUB-SEASON : MARCH TO MAY

Probability of Most Likely Category of Rainfall  
March to May 2019



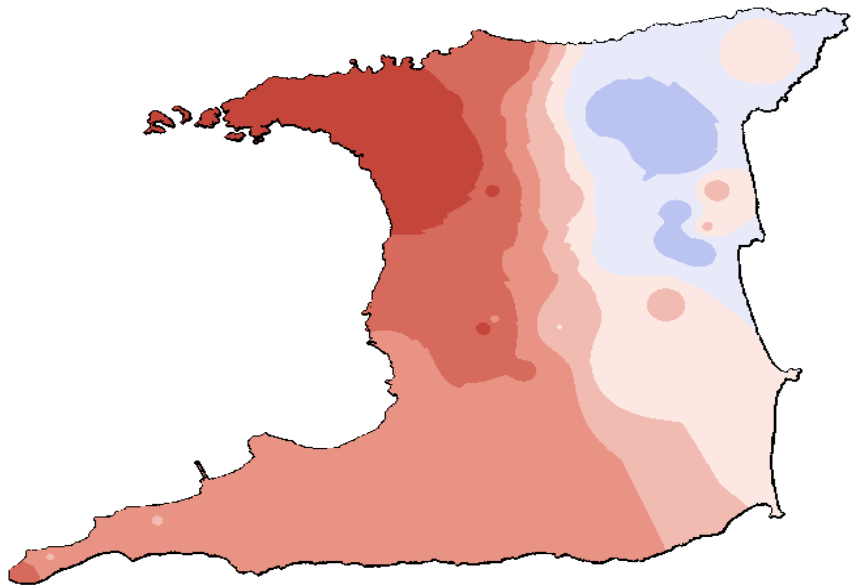
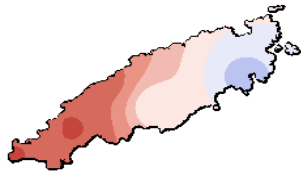
NEAR- TO BELOW NORMAL

EARLY RAINS IN MAY  
LIKELY TO INFLUENCE  
OVERALL RAINFALL  
TOTALS

POSSIBLE EARLY ONSET  
OF 2019 WET SEASON IN  
MAY



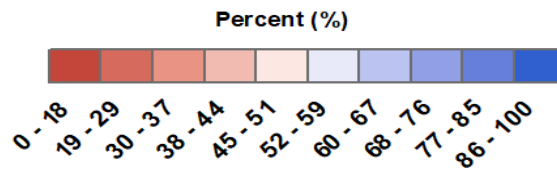
# Chance Of At Least National Dry Season Average



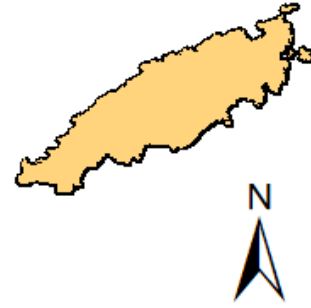
**45-65 % for eastern areas getting at least 434 mm (National Dry Season Average)**

**Less than 50% elsewhere**

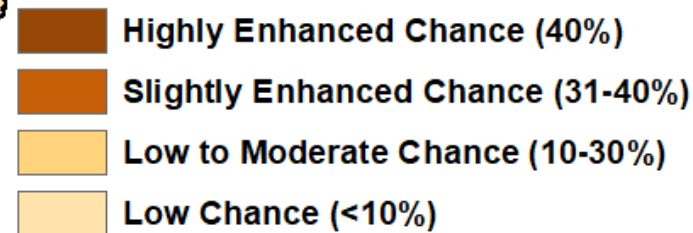
0 10 20  
Kilometers



# CHANCE OF 2019 DRY SEASON RAINFALL WITHIN THE LOWEST 10% OF ALL DRY SEASONS ON RECORD



Risk of Extreme Low Rainfall (%)



0 20 40



Kilometers

- Low to moderate chance for rainfall in the lowest 10%**
- Drought or extreme dryness category**
- Likely scenario that can have high impact on all sectors.**

# DIFFICULT BUSH/LANDFILL FIRE SEASON AHEAD

**Enhanced bush and landfill fire-potential exist:**

- Much drier than usual conditions**
- Increased maximum temperatures**

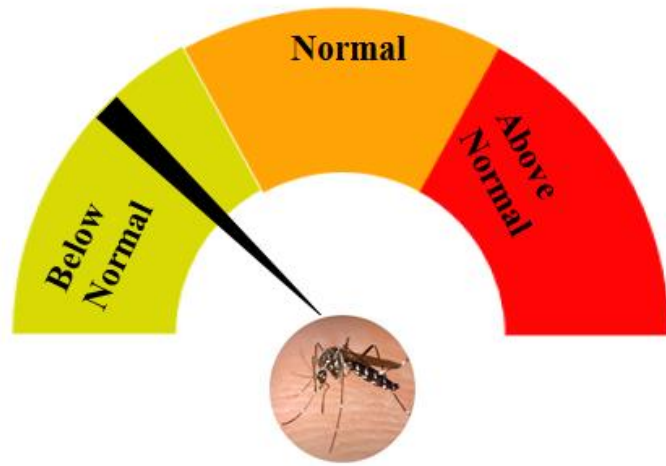
**Enhanced risks for bush and landfill fires during February, March and early April**

**Slash-and-burn methods of land clearance has a higher than usual chance of triggering bush and forest fires**





# CLIMATE-BASED DENGUE INCIDENCE RISK OUTLOOK



Climate Dengue Risk Index

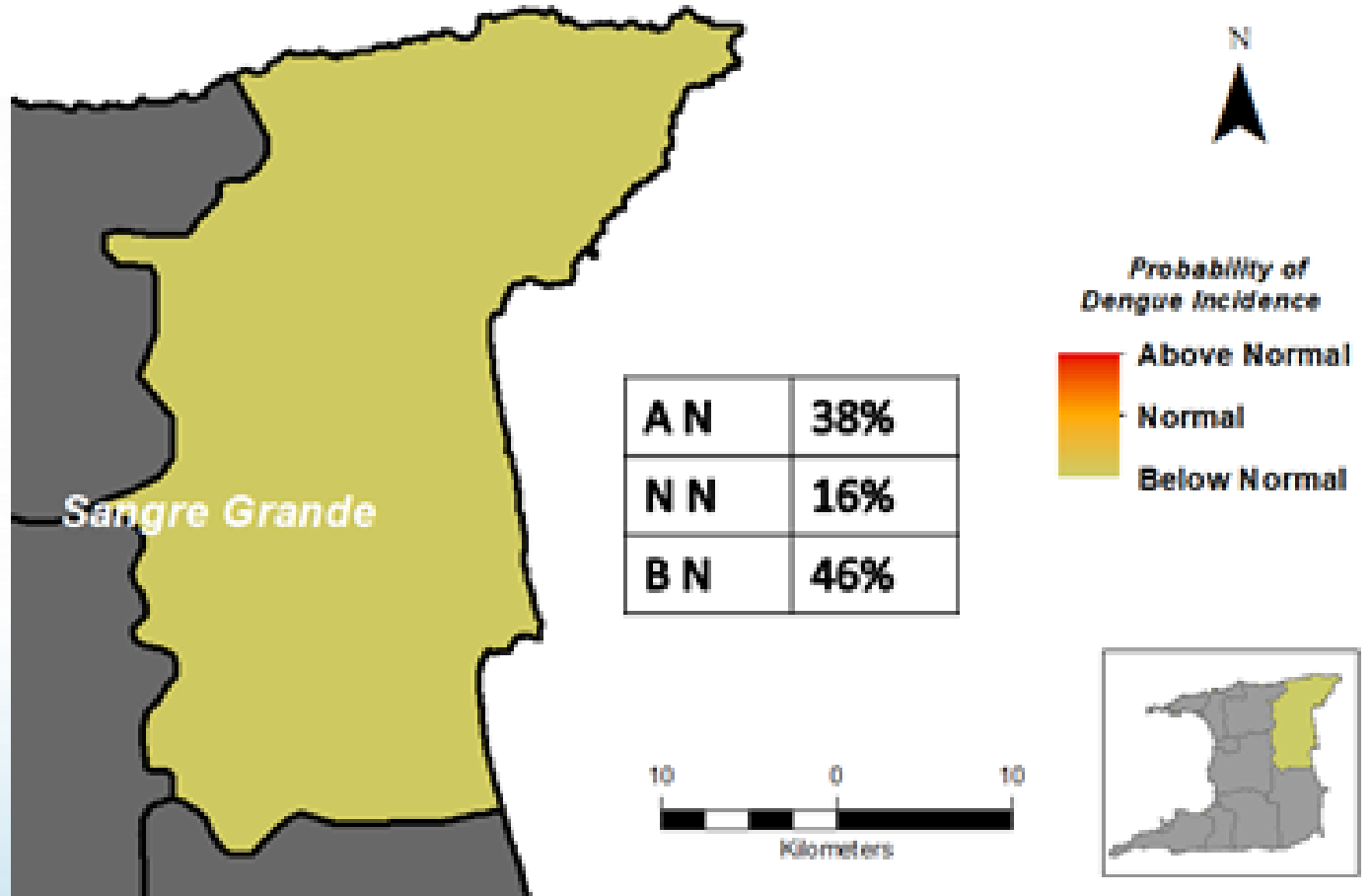
**Probability of Dengue Cases January to May 2019**

**BELOW NORMAL NUMBER OF CASES FOR THE ST DAVID/ST ANDREW COUNTY**

**MOST LIKELY NUMBER OF CASES = 122**

**WORST CASE = 236**

**BEST CASE = 6**



# HEADLINE MESSAGES

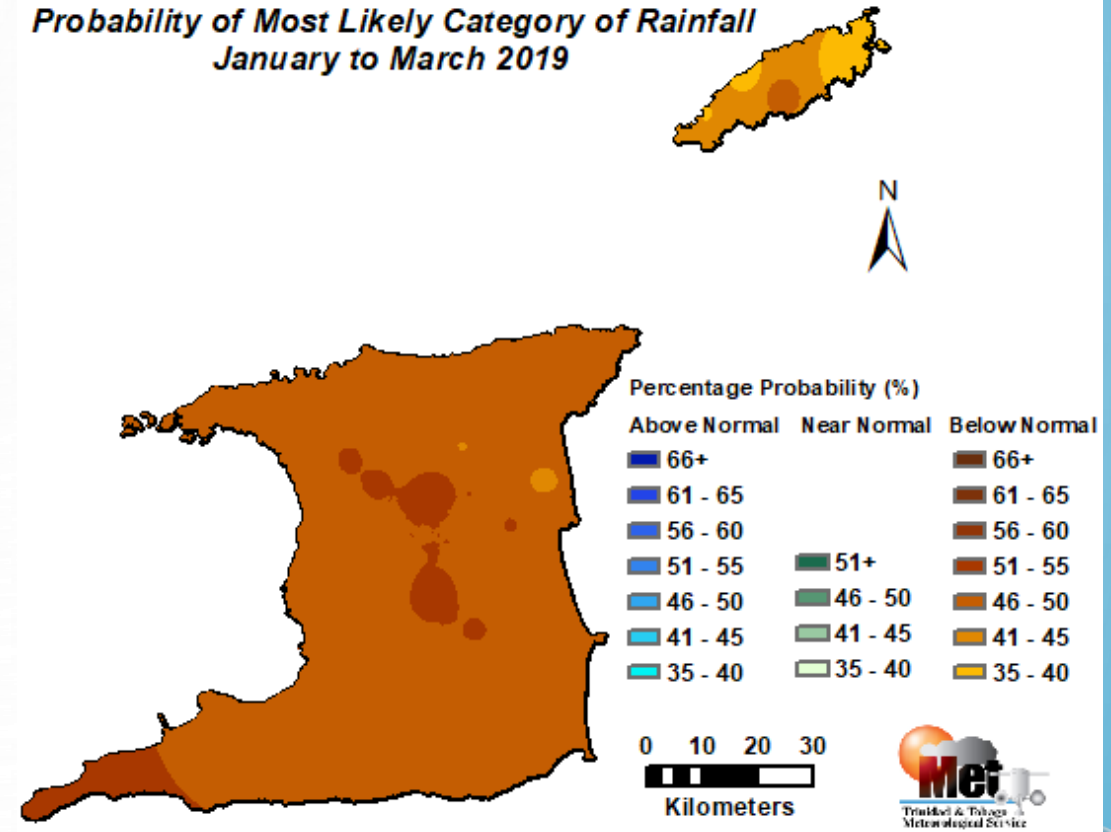
## LESS RAIN:

- DRY SPELLS/DROUGHT
- REDUCED WATER AVAILABILITY
- INCREASED WATER STRESS

## PRESSURE ON:

- FARMERS
- WATER RESOURCE MANAGEMENT
- WATER INTENSIVE SECTORS

Probability of Most Likely Category of Rainfall  
January to March 2019



# HEADLINE MESSAGES

## WARMER DAYS & NIGHTS:

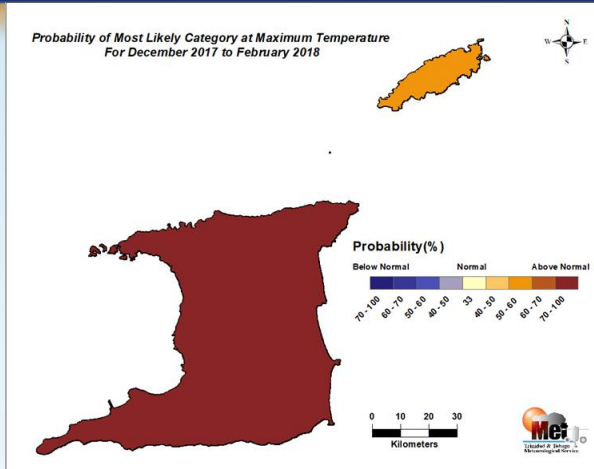
- DAILY HEAT EXTREMES MORE COMMON
- MULTI-DAY HOT SPELLS MORE COMMON

## HOT DAYS CAN:

- INCREASE THE RISK OF DEHYDRATION AND OTHER HEAT RELATED STRESSORS
- MOST VULNERABLE ARE SOCIALLY ISOLATED, ELDERLY, YOUNG CHILDREN, YOUNG LIVESTOCK

## HIGH BUSHFIRE POTENTIAL:

- RISK OF LARGER NUMBER OF BUSHFIRES AND LARGER ACREAGE OF VEGETATION BURNT
- POORER AIR QUALITY
- PRESSURE ON PERSONS SUFFERING FROM RESPIRATORY AILMENTS
- INCREASED PRESSURE OF HEALTH SECTOR





## National Climate Outlook Forum (NCOF) 8

### Preparedness to Mitigate Climate- Related Impacts from El Niño and El Niño-like Conditions

*Thank You*

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