

***Chance Of Above-Normal Season Over The Next Three Months***

**SEASONAL CLIMATE FORECAST PRODUCED BY THE CLIMATE PREDICTABILITY TOOL (CPT)**

**SUMMARY:**

Station	Below (B) %	Normal (N) %	Above (A) %
<b>Jamaica Rainfall Outlook</b>	<b>25</b>	<b>35</b>	<b>40</b>
<b>Jamaica Temperature Outlook</b>	<b>30</b>	<b>30</b>	<b>40</b>

As we look at the upcoming three months period, April to June 2018, the seasonal forecast for temperatures and rainfall are likely to be near-normal to above-normal over most areas of the island.

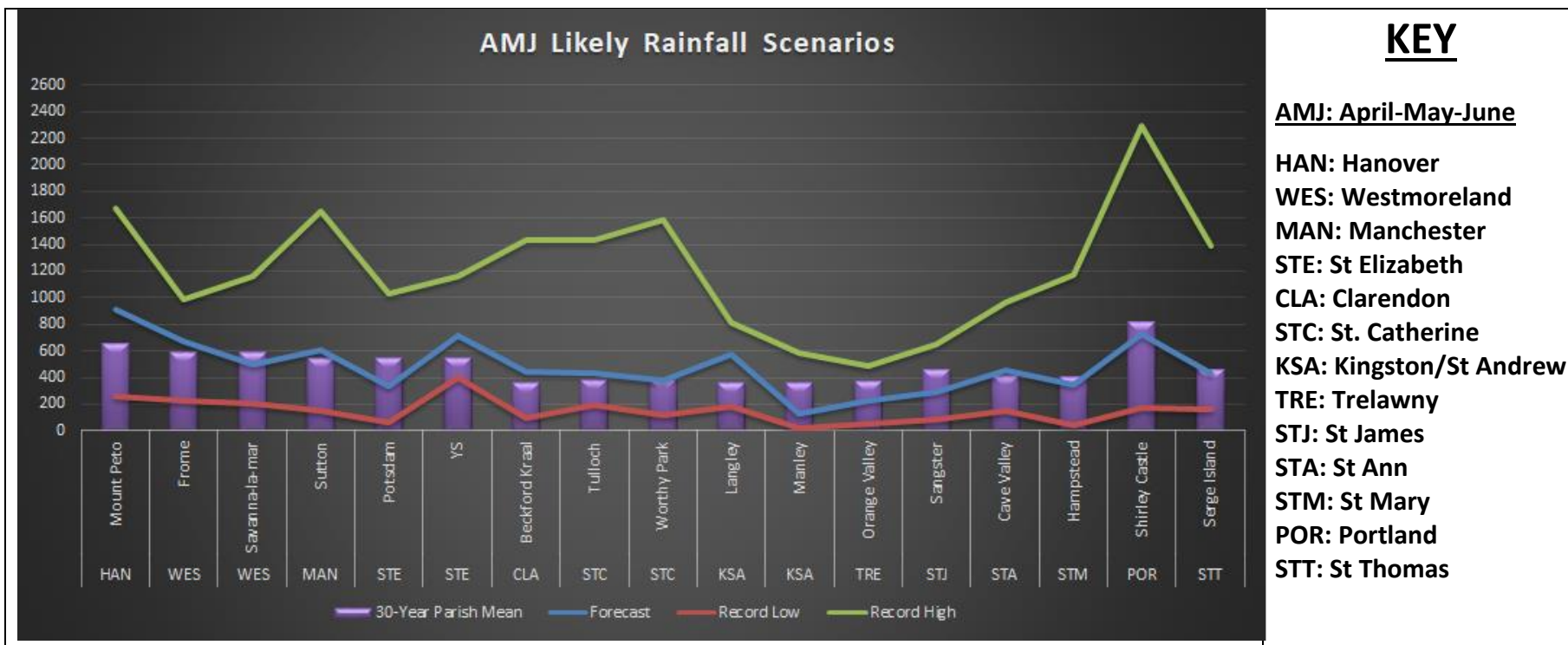
The forecast confidence level for the period indicates that rainfall and temperatures are likely to be higher than normal with a reduced chance of drought especially over eastern parishes.

The Meteorological Service will continue to monitor the findings from the models in the upcoming months, so as to advise our stakeholders: especially farmers, accordingly.

**FORECAST VERIFICATION APRIL TO JUNE 2017**

For the same period last year, April-June 2017, the models under-performed, with accuracy in the range of 30-45 percentage points. This was due to very weak signals from the oceans during this transition period. The initial forecast indicated that rainfall was likely to be below-normal for the period; however, most stations recorded above-normal rainfall amounts.

**Seasonal Forecast Outlook April-June 2018 and the Likely Scenarios**



**KEY**

**AMJ: April-May-June**

**HAN: Hanover**  
**WES: Westmoreland**  
**MAN: Manchester**  
**STE: St Elizabeth**  
**CLA: Clarendon**  
**STC: St. Catherine**  
**KSA: Kingston/St Andrew**  
**TRE: Trelawny**  
**STJ: St James**  
**STA: St Ann**  
**STM: St Mary**  
**POR: Portland**  
**STT: St Thomas**

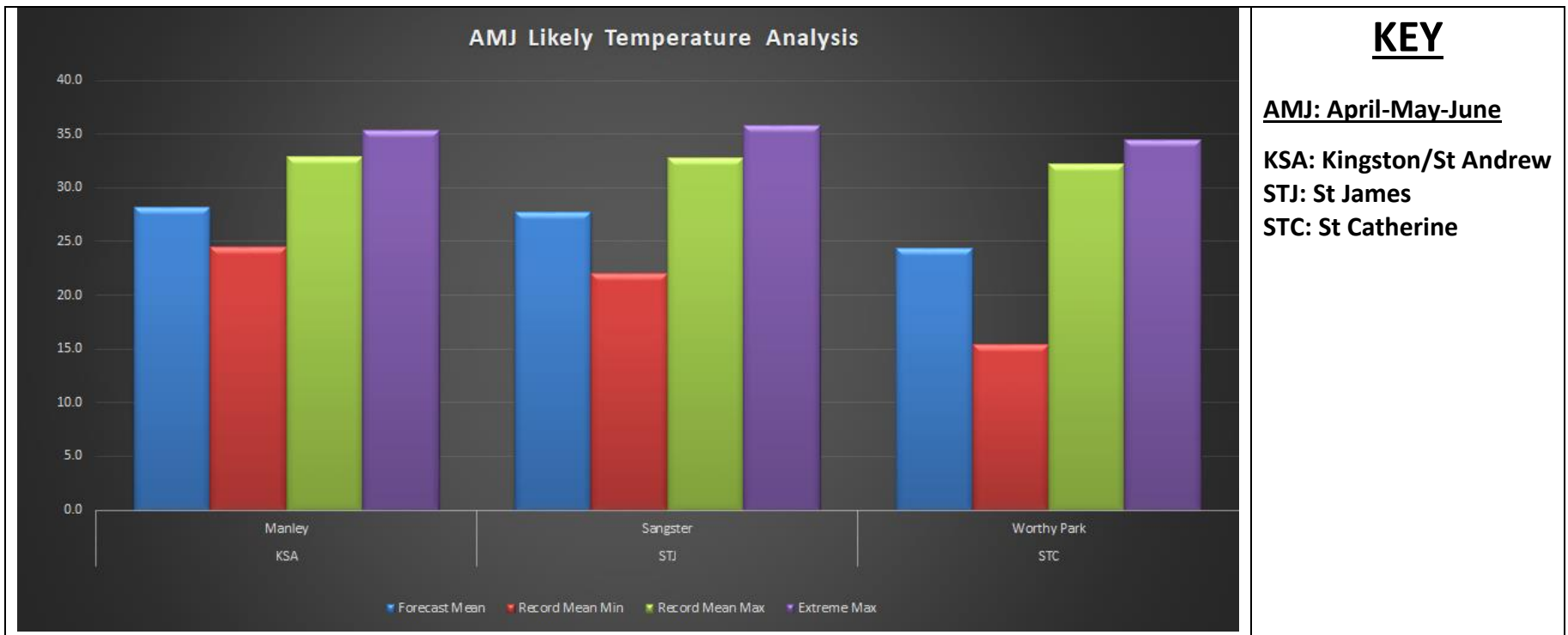
**Figure 1: April-May-June likely Rainfall Scenarios.**

**Parish Mean: 1981-2010**

**Local Precipitation Outlook Analysis:**

The forecasted rainfall pattern for the upcoming three months period, (April, May and June). The data favours a near-normal to above-normal rainfall pattern. The graph listed above, indicates that most stations are likely to receive about average rainfall. However, the following stations, Mount Peto, YS and Langley are likely to experience wetter than normal conditions during the period. YS in St Elizabeth is likely to experience the greatest shift towards increased rainfall amounts while Manley in Kingston could experience the least amount of rainfall during the period.

## Jamaica's Seasonal Climate Outlook April-June 2018



**Figure 2: April-May-June likely Temperature Scenarios.**

**Local Temperature Outlook Analysis:**

Over the period, temperature values are likely to be above normal with mean temperatures varying between 24-28 degrees Celsius. Manley in the Southeast is likely to experience the warmest temperatures, while Worthy Park is forecast to experience the lowest temperatures during the period in comparison to other stations.

Climate Predictability Tool (CPT) Station Outlook

Parishes	Stations	Below (B) %	Normal (N) %	Above (A) %
Clarendon	Beckford Kraal	40	30	30
Hanover	Mount Peto	20	30	50
KSA	Manley	40	30	30
KSA	Langley	15	35	50
KSA	Lawrence Tavern	33	34	33
Manchester	Sutton	30	30	40
Portland	Shirley Castle	40	30	30
St James	Sangster	25	35	40
ST. Ann	Cave Valley	20	35	45
ST. Catherine	Tulloch	40	30	30
ST. Catherine	Worthy Park	25	35	40
ST. Elizabeth	YS	30	30	40
ST. Elizabeth	Potsdam	33	34	33
ST. Mary	Hampstead	33	34	33

## Jamaica's Seasonal Climate Outlook April-June 2018

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ST. Thomas	Serge	30	30	40
Trelawny	Orange Valley	20	35	45
Westmoreland	SAV	25	35	40
Westmoreland	Frome	15	35	50

### Key

A: Above normal rainfall means greater than 66 percentile of the rank data

N: Near normal rainfall means between 33 and 66 percentile of the rank data

B: Below normal rainfall means below 33 percentile of the rank data

### Background

Human induced climate change and increasing climate variability, as well as other environmental issues such as land degradation, threaten the ability of the nation to meet the needs of its population for food. To address these challenges, it is important to integrate the issues of climate variability and climate change into resource use and developmental decisions.

Decreasing the vulnerability of agriculture to natural climate variability is a key issue for small islands like Jamaica. Introducing seasonal rainfall forecasts into management decisions can reduce this vulnerability of agriculture to droughts and floods. Therefore, short to long term precipitation forecasts as well as drought monitoring products will assist in making critical decisions about the growing seasons for crops as well as irrigation scheduling.

This seasonal rainfall summary is prepared by the Climate Branch of the Meteorological Service Division and takes into account a correlation between the rainfall totals and sea surface temperatures across the Pacific and Atlantic Oceans. The experiment also looks at a number of drivers of rainfall across the region, like El Niño and the North Atlantic Oscillation. Before we can arrive at the forecast, an extensive training period with a minimum of thirty years of data is used to work out the best forecast.

### **Indices and Definitions**

**El Niño:** A phenomenon in the equatorial Pacific Ocean characterized by a positive sea surface temperature departure from normal (for the 1971-2000 base period) in the Niño3.4 region greater than or equal in magnitude to 0.5°C, averaged over three consecutive months.

**La Niña:** A phenomenon in the equatorial Pacific Ocean characterized by a negative sea surface temperature departure from normal (for the 1971-2000 base period) in the Niño3.4 region greater than or equal in magnitude to 0.5°C, averaged over three consecutive months.

**ENSO (El Niño-Southern Oscillation):** An ENSO warm phase refers to an El Niño event, and an ENSO cold phase refers to a La Niña event. As El Niño and the Southern Oscillation are related, the two phrases are often combined as ENSO (El Niño-Southern Oscillation). El Niño and La Niña events have now been clearly identified as perturbations of the ocean atmosphere system. In addition to changes in SSTs, there are typically changes in the strength and direction of the Trade winds.

**NAO conditions and the Atlantic Subtropical High:** The NAO is the dominant mode of winter climate variability in the North Atlantic region ranging from central North America to Europe and much into Northern Asia. The NAO is a large scale seesaw in atmospheric mass between the subtropical high and the polar low. The corresponding index varies from year to year, but also exhibits a tendency to remain in one phase for intervals lasting several years.

**APCC: APEC (Asia-Pacific Economic Cooperation) Climate Center:** Provides reliable real-time climate prediction system, through a state-of-the-art multi-model climate prediction system utilizing model predictions from member economies.

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