
Seasonal Climate Watch

February to June 2018

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I. Overview

The El Niño-Southern Oscillation (ENSO) is expected to remain in a weak La Niña phase through to early autumn (Feb-Mar-Apr). This suggests above-normal rainfall is to be expected later in the summer rainfall season which can extend towards early autumn for the far north-eastern parts of the country. Some caution is advised however, as circulation over the equatorial Pacific Ocean does not resemble a typical La Niña phase and as such introduces a minor amount of uncertainty in the current forecast.

Potential flooding events then remain a concern through early autumn. It is advised that early-warning systems from the South African Weather Service be followed throughout the end of the summer season as well as the start of autumn for the north-eastern parts of the country.

Lower temperatures on average are also expected throughout the early autumn period, as consistent cloud cover and rainfall events are expected to be more dominant than usual. In contrast however, the south-western parts of the country are still expected to experience higher temperatures on average during the late autumn season.

The South African Weather Service will continue to monitor and provide updates of any future assessments that may provide more clarity on the current expectations for the coming seasons.

2. Discussion: State of Climate Drivers

2.1 El Niño-Southern Oscillation

Observations show that [ENSO](#) (El Niño-Southern Oscillation) is now in a weak La Niña phase. Forecasts suggest that it is likely for this weak La Niña to continue through early autumn. A La Niña event typically enhances rainfall activities over the summer-rainfall areas of South Africa if the circulation over the equatorial Pacific is strong enough.

2.2 Indian Ocean Dipole

The Indian Ocean Dipole ([IOD](#)) forecasts indicate neutral conditions during the autumn season and is not expected to have any influence during this period. The IOD, both tropical and subtropical, can enhance moisture transport towards the continent during positive phases and degrade this transport during negative phases.

2.3 Southern Annular Mode

The Southern Annular Mode ([SAM](#)) has been consistently positive the last months and is expected to remain positive for the coming weeks. If the positive trend continues through to early winter, it may cause a slow start to the winter rainfall regions.

3. Climate Forecast Details

3.1 Rainfall

The forecasting system indicates above-normal rainfall over the far north-eastern parts of the country as well as over parts of the interior during early autumn (Feb-Mar-Apr). It is expected that the total rainfall for these areas would rather be more frequent rainfall events than more intense events. During mid- (Mar-Apr-May) and late autumn (Apr-May-Jun), the south western interior are expected to experience above normal rainfall, and parts of the Western Cape to receive below-normal rainfall totals.

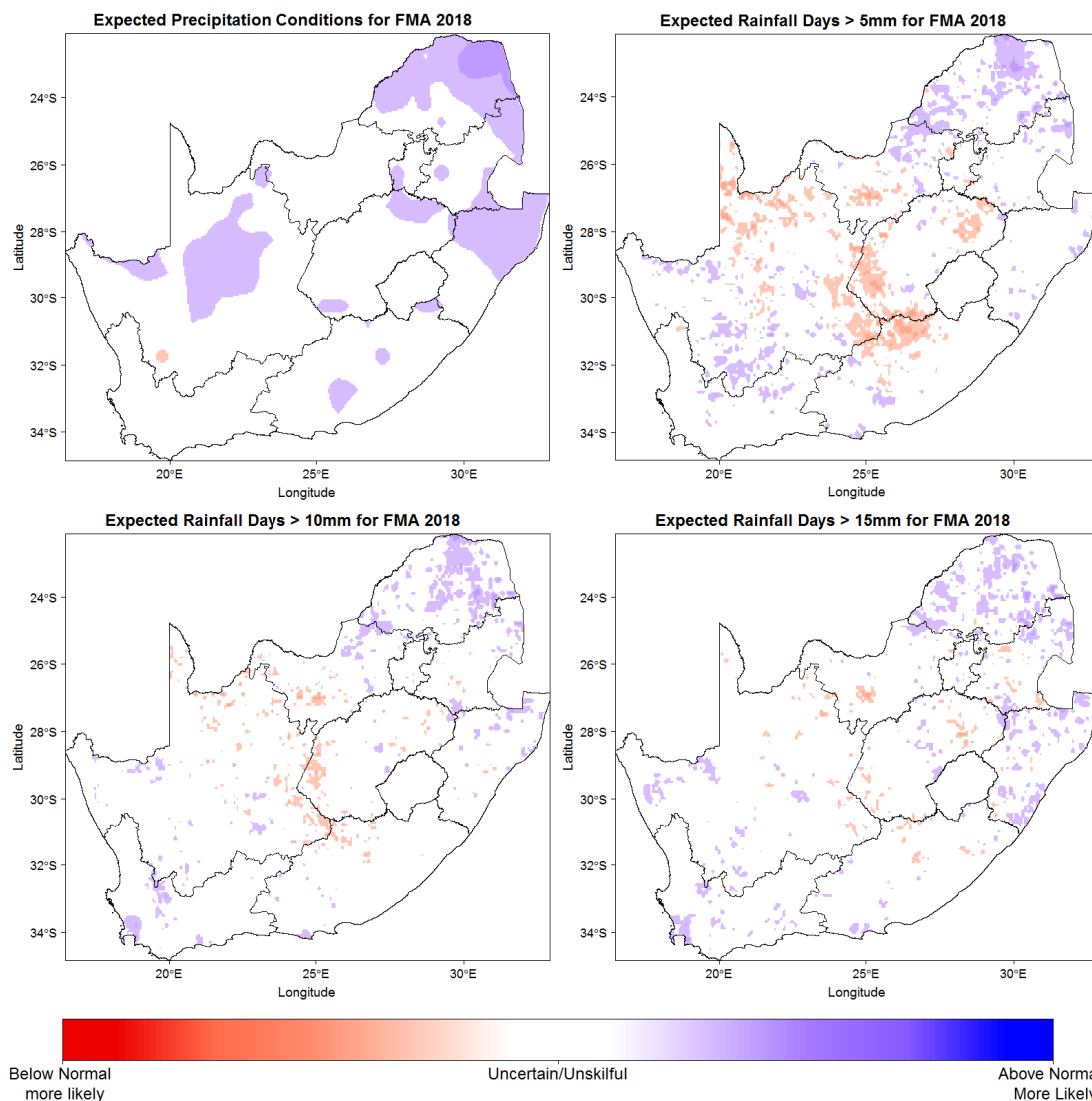


Figure 1: Rainfall forecasts for Feb-Mar-Apr 2018, showing chances for total precipitation (top left), frequency of rainfall days above 5 mm (top right), frequency of rainfall days above 10 mm (bottom left) and frequency of rainfall days above 15 mm (bottom right)

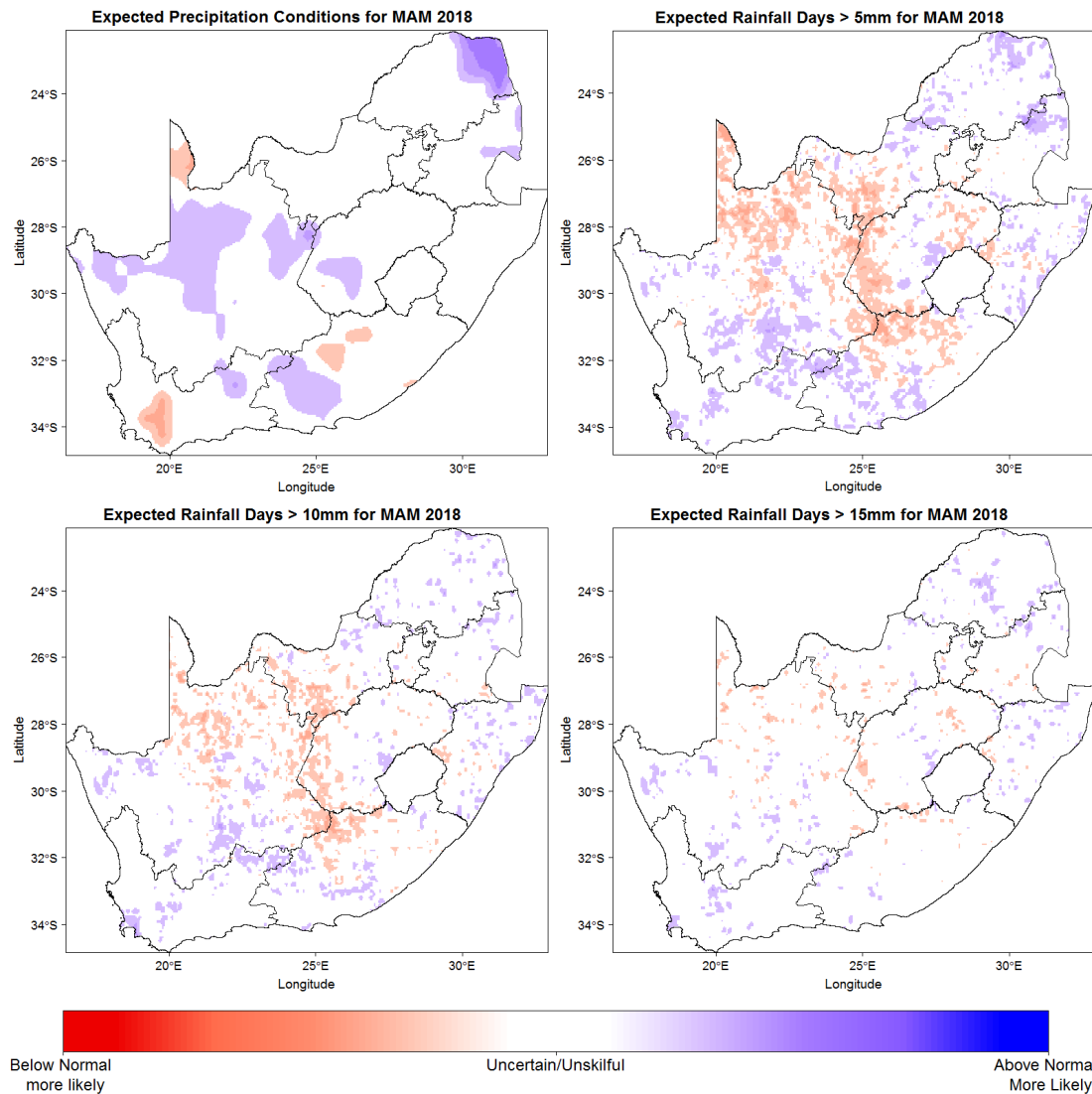


Figure 2: Rainfall forecasts for Mar-Apr-May 2018, showing chances for total precipitation (top left), frequency of rainfall days above 5 mm (top right), frequency of rainfall days above 10 mm (bottom left) and frequency of rainfall days above 15 mm (bottom right)

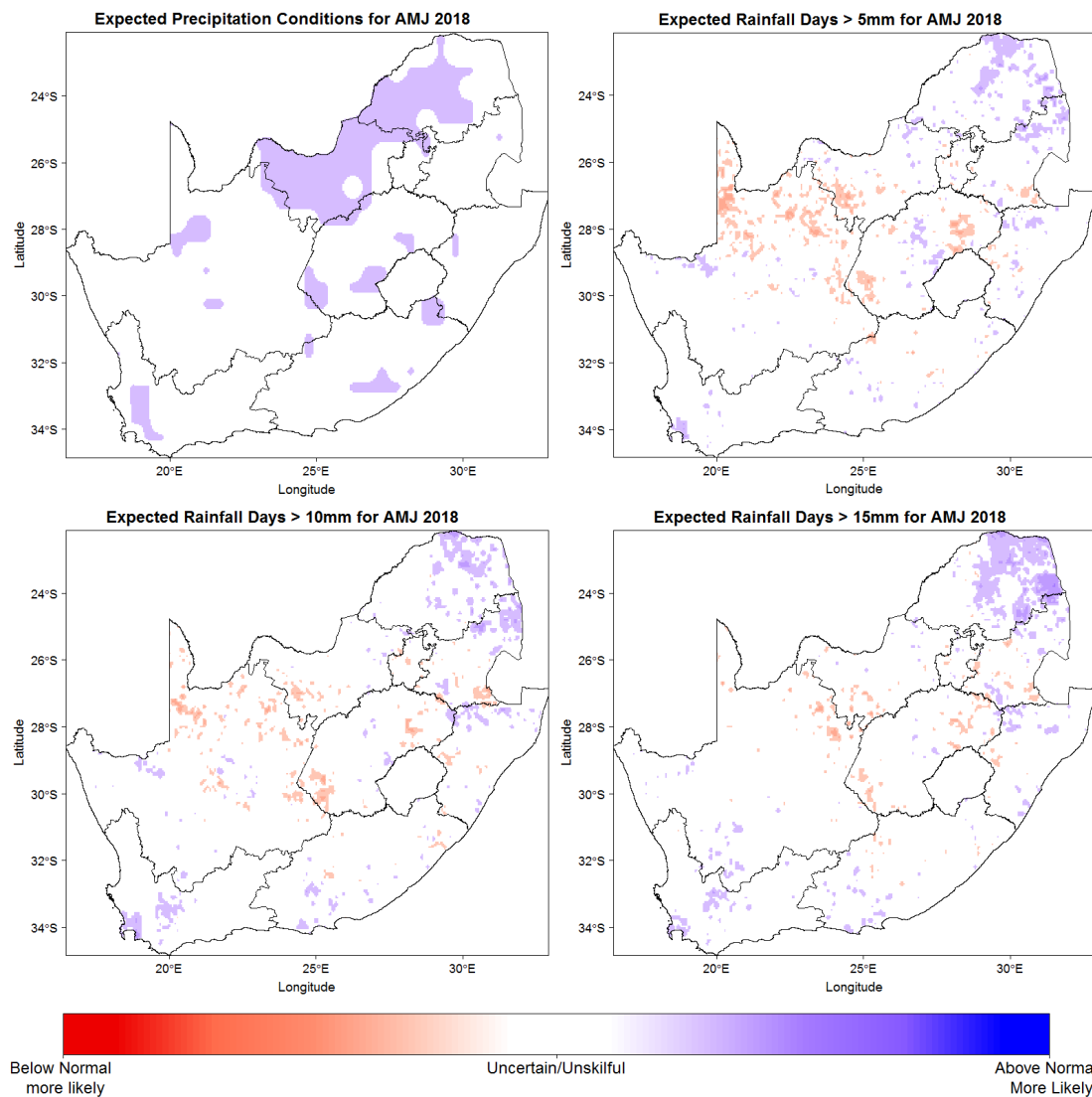


Figure 3: Rainfall forecasts for Apr-May-Jun 2018, showing chances for total precipitation (top left), frequency of rainfall days above 5 mm (top right), frequency of rainfall days above 10 mm (bottom left) and frequency of rainfall days above 15 mm (bottom right)

3.2 Minimum and Maximum Temperatures

Currently temperature predictions mainly indicate on average lower temperatures. A notable exception however, is expected over parts of the Western Cape where generally higher temperatures are expected during autumn.

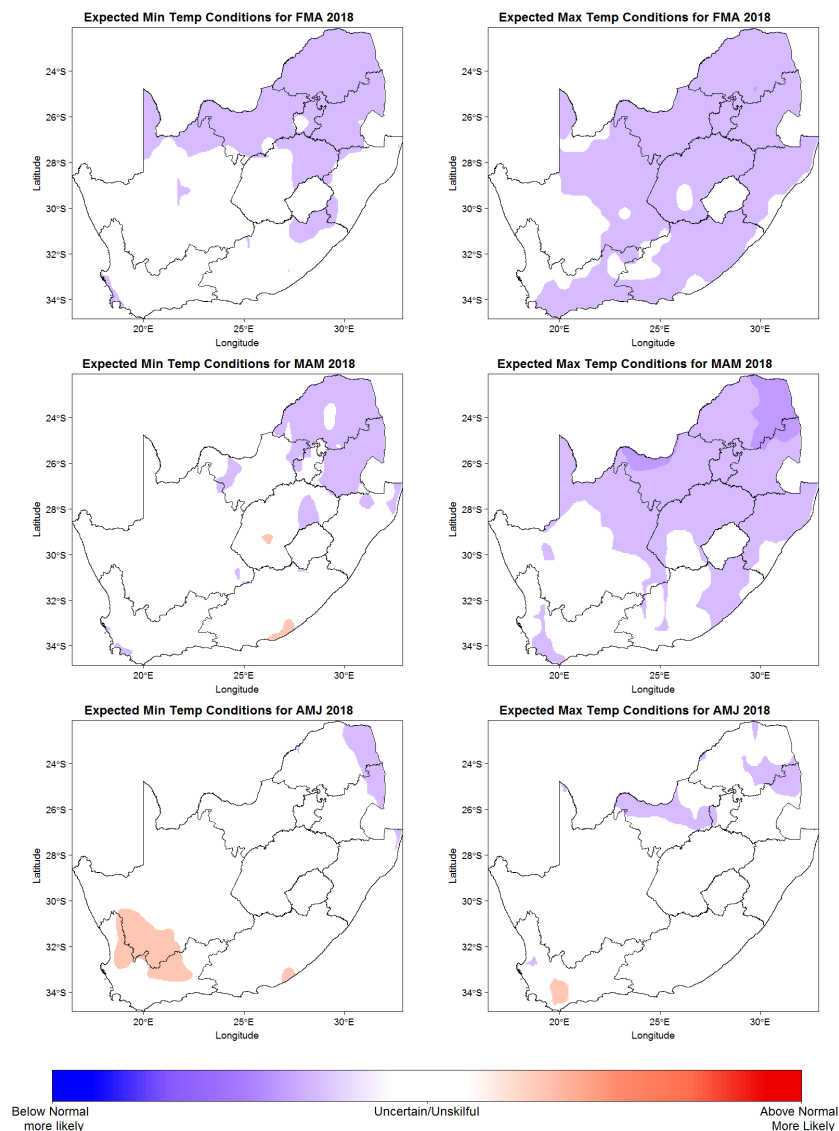


Figure 2: Chances for Minimum (left side) and Maximum (right side) temperatures for the three overlapping seasons valid for the period of February to June 2018.

4. Contributing Institutions

All the forecasts are a result of an objective multi-model prediction system developed at the South African Weather Service. This system consists of long-range forecasts produced by the following institutions:

