SOUTHERN AFRICAN DEVELOPMENT COMMUNITY
CLIMATE SERVICES CENTRE

MONTHLY CLIMATE BULLETIN

Bulletin Period: SEPTEMBER 2018

1. INTRODUCTION

The monthly climate watch bulletin was prepared with products generated using Africa Rainfall Climatology version 2 data (ARC2) for rainfall and African Flood and Drought Monitor dataset (AFDM) for temperature. This bulletin provides an analysis of the climate conditions that were experienced in the Southern African Development Community (SADC) during September 2018. It reviews the total rainfall experienced together with the departure from long term average and the minimum and maximum temperatures and their respective anomalies.

2. HIGHLIGHTS

Improved rainfall distribution over the region with the northern Half of the region receiving more rains as compared to the other parts of the region. The central parts of the region experienced below normal rainfall with normal to below rainfall being experienced over northern and southern parts of the region (Figure 1 and 2).

During the month of September 2018, the bulk of the region experienced warmer than long-term average minimum temperatures as shown on (Figure 4 and 6).

3. RAINFALL ANALYSIS

REVIEW OF LAST 30 DAYS

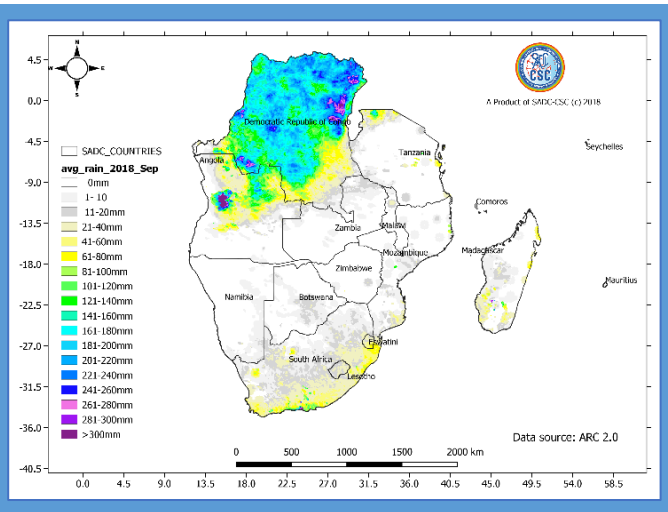

Figure 1: distribution of rainfall for September 2018 (Data source:ARC2)

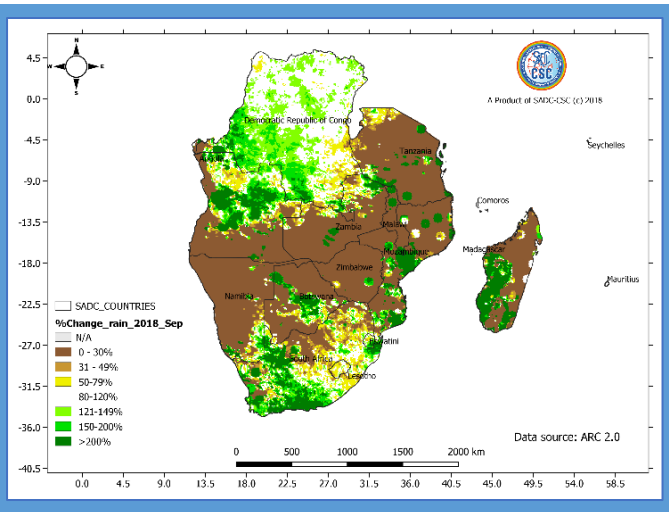

Figure 2: percentage change from long-term average (1983-2012) rainfall for September 2018 (Data source:ARC2)

Rainfall improved over the region these past 30 days, rainfall was concentrated in northern parts of the region in DRC and northern parts of Angola receiving more than 240 mm of rainfall. The southern coasts of South

Africa, parts of southern Madagascar, Eswatini and eastern Lesotho received more than 40 mm while less 10 mm was received by the rest of the region. Below normal rainfall was received over the central parts of the region in places like Namibia, northern Botswana, most of Zimbabwe, Tanzania, northern Mozambique, south western and eastern Zambia, southern Angola and northern Madagascar. The extreme northern and southern parts of the region received normal to above normal rainfall, with above normal rainfall being received over parts of northern central Angola and Botswana, extreme southern South Africa, Eswatini and south western Madagascar.

4. TEMPERATURE ANALYSIS

REVIEW OF LAST 30 DAYS

MAXIMUM TEMPERATURE

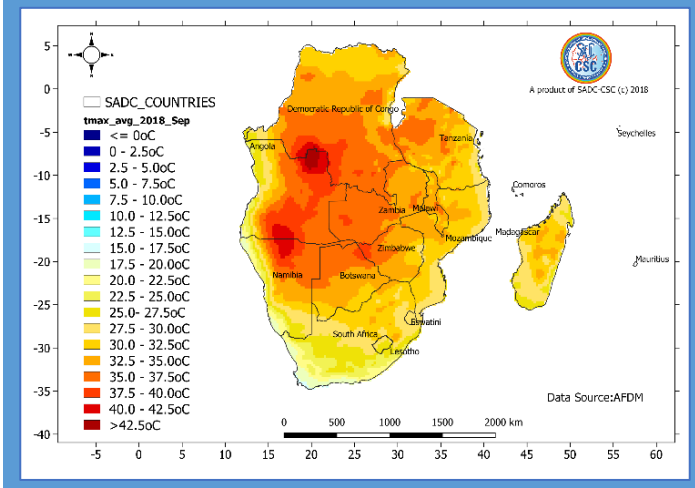

Figure 3: average maximum temperature for September 2018 (Data source AFDM)

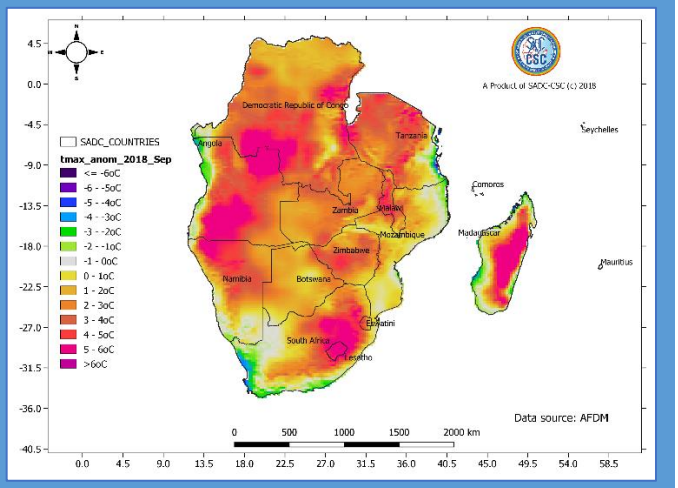

Figure 4: difference from long-term average (1981-2010) maximum temperature for September 2018 (Data source: AFDM)

Over the last 30 days the days have become more warmer with maximum average temperature of 20 ^{o}C being experienced along western most of Angola, Namibia, Lesotho and south Africa. Northern half of DRC, northern Tanzania, southern half of Botswana all experienced more than 30 ^{o}C of maximum temperature while more than 40 ^{o}C was experienced over places like northern DRC, eastern half of Angola, north eastern Namibia, northern Botswana and western Zambia as depicted by (Figure 3). The anomaly map (Figure 4) shows that warmer than long-term average maximum temperature was experienced over the greater parts of the region with the coastal areas experiencing cooler than long-term average temperature.

MINIMUM TEMPERATURE

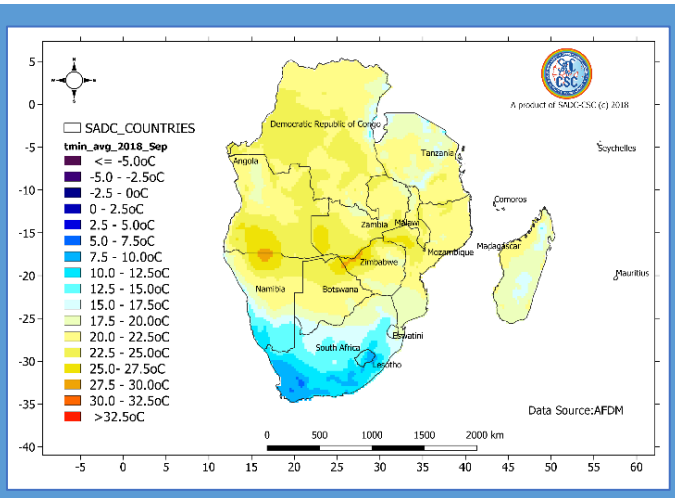

Figure 5: average minimum temperature for September 2018 (Data source AFDM)

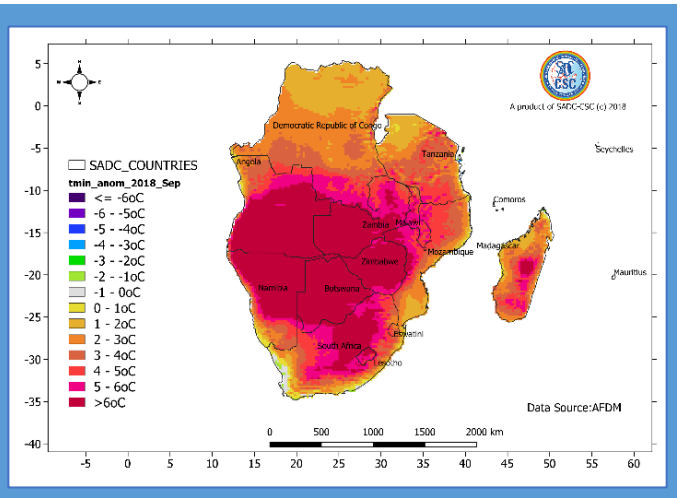

Figure 6: difference from long-term average (1981-2010) minimum temperature for September 2018 (Data source: AFDM)

Cool nights of less than 15 ºC (Figure 5) were experienced over southern Namibia, Eswatini, Lesotho, much of South Africa, Northern parts of Tanzania and central parts of Madagascar. The rest of the region experienced temperatures above 20 ºC making the nights warmer in these parts. Most of the region experienced warmer than long-term average minimum temperature.

5. CLIMATE OUTLOOK

FORECAST FOR THE NEXT 31 DAYS

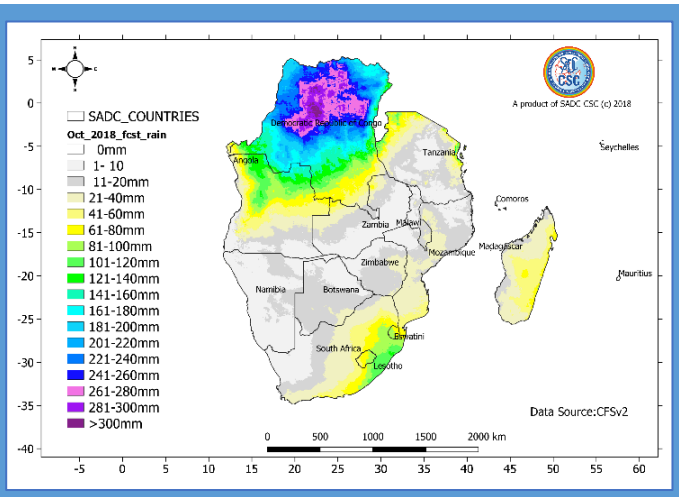

Figure 7: total rainfall forecast for October 2018 (Data source CFSv2)

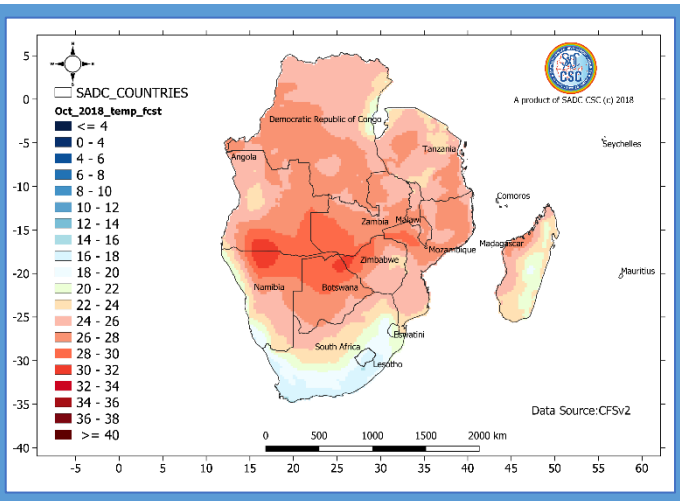

Figure 8: mean temperature forecast for October 2018 Data Source: CFSv2)

The rainfall forecast (Figure 7) shows improvement of rainfall and distribution over the majority of the region with north and extreme south eastern parts getting the bulkier of the rainfall. Rainfall amounts of more than 280 mm are expected over central parts of DRC and 140 mm expected over northern Angola and south eastern South Africa. The southern parts of the region are expected to experience cool mean temperatures of below 20 ^{o}C with warm temperatures of 30 ^{o}C expected over the central region while most parts will receive mild temperatures of around 25 ^{o}C as in (Figure 8)

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