



SOUTHERN AFRICAN DEVELOPMENT COMMUNITY CLIMATE SERVICES CENTRE

MONTHLY CLIMATE BULLETIN

Bulletin Period: **DECEMBER 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 December 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

The bulk of the region was relatively wet with significant amount of rainfall observed over parts of central to southern tip of DRC, eastern half of Zambia. Bulk of Malawi, western Tanzania, central Mozambique, Comoros, Mauritius and northern Madagascar. These rains were slightly above the long-term mean for the same period over parts of northern SADC and found to be normal to below normal for the rest of the region (Figures 1 & 2).

Warm temperatures ranging from 25.0 °C to 30 °C were recorded over most of northern central parts of the region with hot maximum temperatures of greater than 32.5 °C observed over southern central into the southern parts of the region with most of the region experiencing warmer than average maximum temperatures. Cool minimum temperatures of less than 20 °C were recorded over the bulk of the region with the southern most parts of the region experiencing warmer than average minimum temperatures.

3. HIGHLIGHTS

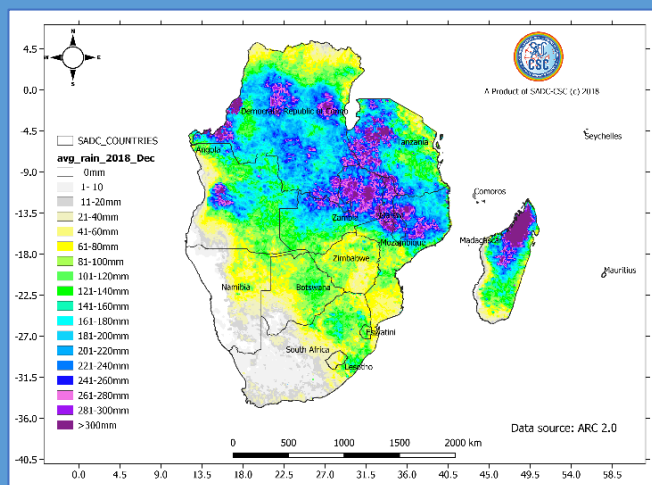


Figure 1: distribution of rainfall for December 2018 (Data source:ARC2)

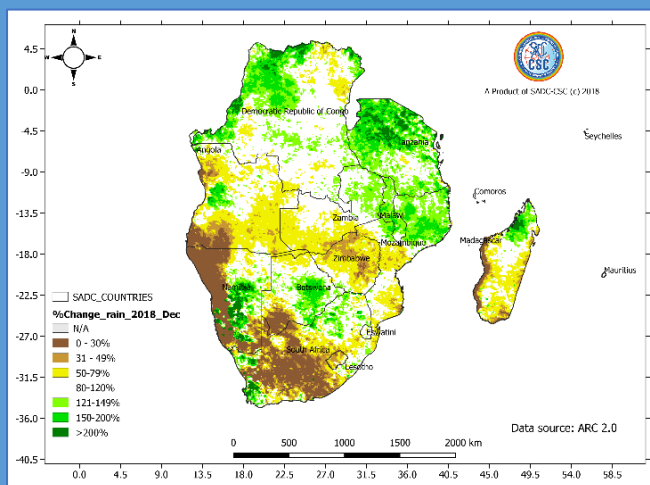


Figure 2: percentage change from long-term average (1983-2012) rainfall for December 2018 (Data source:ARC2)

The bulk of the region was relatively wet with significant amount of rainfall observed over parts of central to southern tip of DRC, eastern half of Zambia. Bulk of Malawi, western Tanzania, central Mozambique, Comoros, Mauritius and northern Madagascar (Figure 1), these amounts reached more than 300 mm for this month. Southern Madagascar, eastern most of Tanzania, southern Mozambique, Zimbabwe, Eswatini, Lesotho, northern South Africa, bulk of Botswana, eastern Namibia, and most parts of Angola recorded amounts greater 100 mm.

Normal to above normal rainfall were experienced over north western parts of DRC, bulk of Tanzania, northern Mozambique, eastern central to southern parts of Botswana, parts of central Namibia, Comoros, Mauritius, Seychelles and northern tip of Madagascar with normal to below normal conditions covering the rest of the region.

4. TEMPERATURE ANALYSIS

REVIEW OF LAST 30 DAYS

MAXIMUM TEMPERATURE

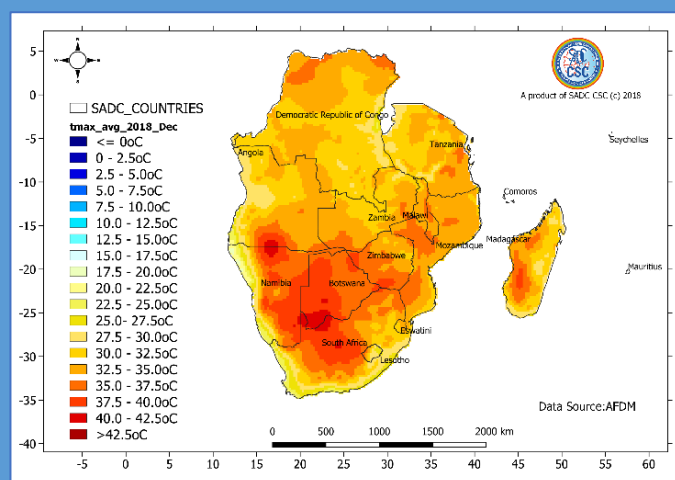


Figure 3: average maximum temperature for December 2018 (Data source AFDM)

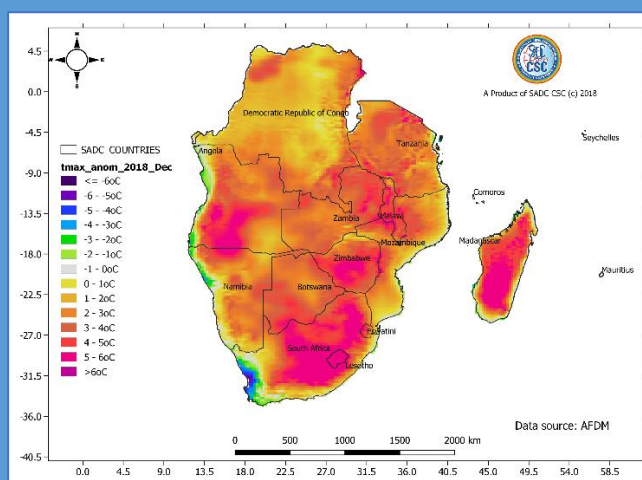


Figure 4: difference from long-term average (1981-2010) maximum temperature for December 2018 (Data source: AFDM)

Warm temperatures ranging from 25.0 oC to 30 oC were recorded over most of northern central parts of the region with hot maximum temperatures of greater than 32.5 oC observed over southern central into the southern parts of the region covering eastern half of Namibia, bulk of Botswana, central parts of South Africa and southern Zimbabwe.

Most of the region experienced warmer than average maximum temperatures with an intensified increase over Eswatini, Lesotho, most of South Africa, southern parts of Botswana, most of Zimbabwe, northern tip of Namibia, southern parts of Angola, eastern parts of Zambia, Malawi and central parts of Madagascar. Cooler than average maximum temperatures were observed over western Cape of South Africa, western coasts of Namibia and Angola.

MINIMUM TEMPERATURE

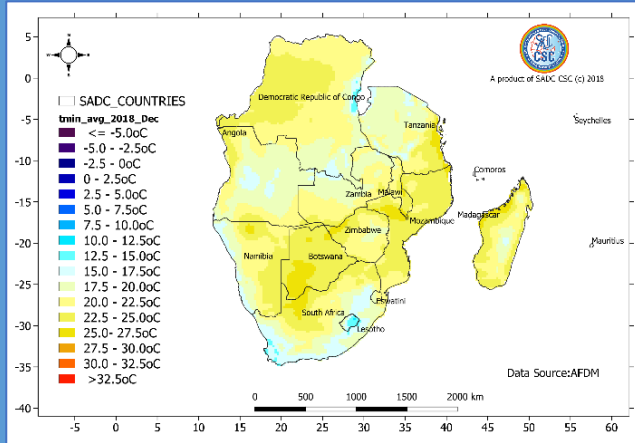


Figure 5: average minimum temperature for December 2018 (Data source AFDM)

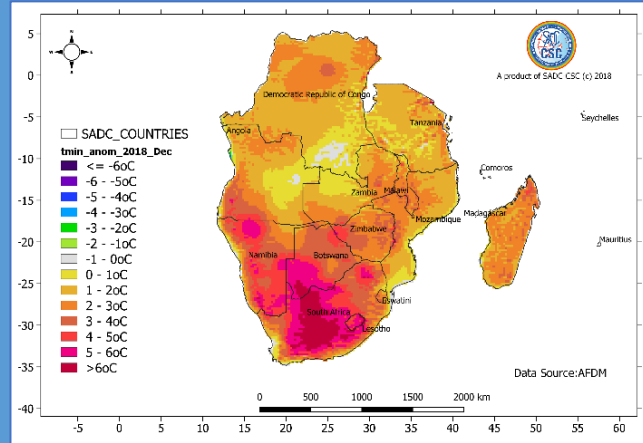


Figure 6: difference from long-term average (1981-2010) minimum temperature for December 2018 (Data source: AFDM)

Cool minimum temperatures ranging from 15 °C to 17.5 °C were observed over Lesotho, most parts of southern South Africa into the western Cape, along the coastal areas of Namibia, central parts of Angola, southernmost of DRC to western Tanzania. Less than 20 °C was recorded over the bulk of the region.

The southern most parts of the region experienced warmer than average minimum temperatures in places like southern Botswana, most of Namibia, central South Africa and Lesotho. An increase of 1 °C from the long-term average was observed over central parts of the region into the island's states.

5. CLIMATE OUTLOOK

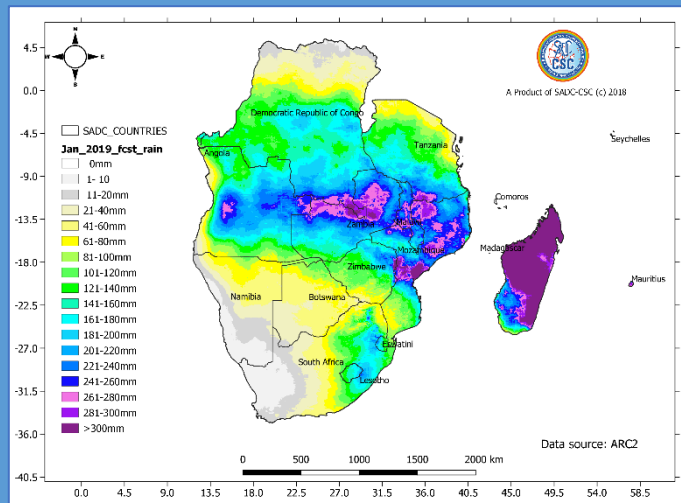


Figure 7: total rainfall forecast for January 2019 (Data source CFSv2)

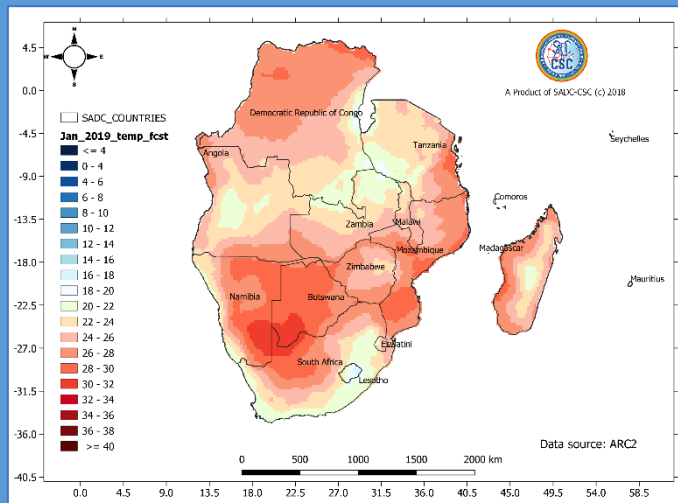


Figure 8: mean temperature forecast for January 2019 Data Source: CFSv2)

Heavy precipitation expected along the central belt of the region in parts of central Angola, southern tip of DRC, northern parts of Zambia, southern Malawi, central Mozambique, Comoros, bulk of Madagascar, Mauritius and Seychelles all expecting amounts of more than 280 mm from 1st to 31st January.

Hot temperatures of more than 30 °C will be expected over the bulk of Botswana, Namibia, northern westernmost of south Africa and most of Mozambique. Warm temperatures ranging from 22 °C to 26 °C are expected over central and southern most parts of the region.

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