



## **STATEMENT FROM THE EIGHTEENTH SOUTHERN AFRICA REGIONAL CLIMATE OUTLOOK FORUM (SARCOF-18), WINDHOEK, NAMIBIA, 27 – 29 AUGUST 2014.**

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### **SUMMARY**

Southern African Development Community (SADC) is likely to receive normal to above-normal rainfall for the period October to December (OND) 2014. However, northernmost Democratic Republic of Congo (DRC) northern Madagascar and Mauritius are more likely to receive normal to below-normal rainfall.

In November-December 2014-January 2015 (NDJ) period, bulk of the SADC region is likely to receive normal to above-normal rainfall, while the greater part of DRC and northernmost Angola are likely to receive normal to below-normal rainfall.

The bulk of contiguous SADC and the Islands States are likely to receive normal to above normal rainfall during December 2014 to February 2015.

For the period January to March (JFM) 2015, the bulk of SADC is expected to receive normal to above-normal rainfall. However, the greater part of DRC, northernmost Angola and Mauritius are likely to receive normal to below-normal rainfall.

### **THE EIGHTEENTH SOUTHERN AFRICA REGIONAL CLIMATE OUTLOOK FORUM**

The Eighteenth Southern Africa Regional Climate Outlook Forum was held in Windhoek, Namibia from 27 to 29 August 2014 to present a consensus seasonal climate outlook for the 2014/2015 rainfall season over the SADC region. Climate scientists from the SADC National Meteorological and/or Hydrological Services (NMHSs), the SADC Climate Services Centre (CSC) formulated this outlook. Additional inputs were from other global climate prediction centres namely, European Centre for Medium Range Weather Forecast (ECMWF), International Research Institute for Climate and Society (IRI), UK Met Office, Regional Climate Centre, Pune, India and Bureau of Meteorology, Australia (BoM). This outlook covers the major rainfall season from October 2014 to March 2015. The outlooks are presented in overlapping three-monthly periods as follows: October-November-December (OND); November-December-January (NDJ); December-January-February (DJF); and January-February-March (JFM).

**This Outlook is relevant only to seasonal (overlapping three-monthly) time-scales and relatively large areas and may not fully account for all factors that influence regional and national climate variability, such as local and month-to-month variations (intra-seasonal). Users are strongly advised to contact the respective National Meteorological and Hydrological Services for interpretation of this Outlook, additional guidance and updates.**

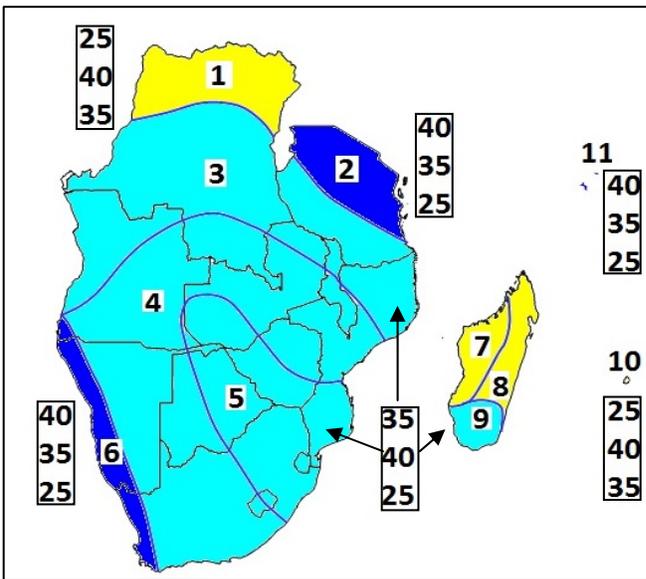
## METHODOLOGY

Using statistical, other climate prediction schemes and expert interpretation, the climate scientists determined likelihoods of above-normal, normal and below-normal rainfall for each area (Figures 1 to 4) for overlapping three-monthly periods i.e. October-November-December (OND), November-December-January (NDJ); December-January-February (DJF); and January-February-March (JFM). Above-normal rainfall is defined as lying within the wettest third of recorded 30 year mean rainfall amounts; below-normal is defined as within the driest third of rainfall amounts and normal is the middle third, centred on the climatological median. The scientists also took into account that El Nino-Southern Oscillation (ENSO) is currently in neutral phase and is projected to be fluctuating.

## OUTLOOK

The period October to March is the main rainfall season over most of southern Africa. Owing to the differences and evolution patterns in the predominant rainfall-bearing systems, the rainy season has been subdivided into four overlapping three-month periods (i.e. OND, NDJ, DJF and JFM as defined above).

### OCTOBER-NOVEMBER-DECEMBER 2014



*Fig 1: Rainfall forecast for October-December 2014*

**Zone 1:** Northern Democratic Republic of Congo (DRC).  
**Increased chances of normal to below-normal rainfall**

**Zone 2:** North-eastern half of Tanzania.  
**Increased chances of above-normal to normal rainfall**

**Zone 3:** Northern Mozambique, south-western Tanzania, northern half of Malawi, northernmost Zambia, bulk of DRC and north-western half of Angola.

**Increased chances of normal to above-normal rainfall**

**Zone 4:** Central Mozambique, southern half of Malawi, north-eastern half of Zimbabwe, most of Zambia, southernmost DRC, south-eastern half of Angola, bulk of Namibia, western half of Botswana, most of central and western parts of South Africa, western parts of Lesotho.

**Increased chances of normal to above-normal rainfall**

**Zone 5:** Extreme south-western Zambia, Zambezi area of Namibia, south-easternmost Angola, south-western half of Zimbabwe, eastern half of Botswana, most of northern South Africa, Swaziland and southern Mozambique.

**Increased chances of normal to above-normal rainfall**

**Zone 6:** Extreme south-western Angola and western coastal areas of Namibia and South Africa.

**Increased chances of above-normal to normal rainfall**

**Zone 7:** Western Madagascar.

**Increased chances of normal to below-normal rainfall**

**Zone 8:** Eastern Madagascar.

**Increased chances of normal to below-normal rainfall**

**Zone 9:** Southern Madagascar

**Increased chances of normal to above-normal rainfall**

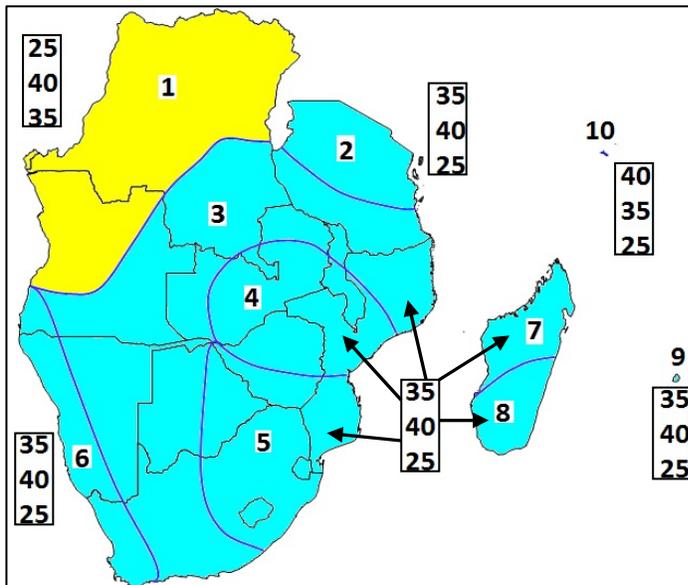
**Zone 10:** Mauritius.

**Increased chances of normal to below -normal rainfall**

**Zone 11:** Seychelles.

**Increased chances of above-normal to normal rainfall**

## NOVEMBER-DECEMBER 2014-JANUARY 2015



*Fig 2: Rainfall forecast for November-December 2014-January 2015*

**Zone 1:** Bulk of DRC and northern half Angola.

**Increased chances of normal to below-normal rainfall**

**Zone 2:** North-eastern half Tanzania.

**Increased chances of normal to above-normal rainfall**

**Zone 3:** Northern Mozambique, south-western half of Tanzania, northern Malawi, northern and western Zambia, southern DRC, bulk of Angola, most of Namibia, western half of Botswana, most of central and western parts of South Africa.

**Increased chances of normal to above-normal rainfall**

**Zone 4:** Southern Zambia, southern Malawi, northern half of Zimbabwe and central parts of Mozambique.

**Increased chances of normal to above-normal rainfall**

**Zone 5:** Southern half of Zimbabwe, eastern half of Botswana, north and central South Africa, Lesotho, Swaziland and southern Mozambique.

**Increased chances of normal to above-normal rainfall**

**Zone 6:** South-westernmost Angola, western fringes of both Namibia and South Africa.

**Increased chances of normal to above-normal rainfall**

**Zone 7:** Northern half of Madagascar.

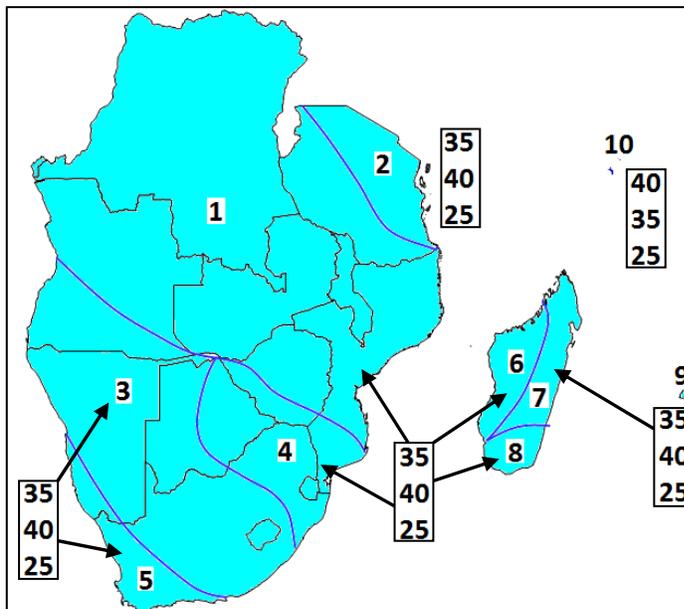
**Increased chances of normal to above-normal rainfall**

**Zone 8:** Southern half Madagascar.  
**Increased chances of normal to above-normal rainfall**

**Zone 9:** Mauritius.  
**Increased chances of normal to above-normal rainfall**

**Zone 10:** Seychelles.  
**Increased chances of above-normal to normal rainfall**

**DECEMBER 2014-JANUARY-FEBRUARY 2015**



**Fig 3: Rainfall forecast for December 2014-January-February 2015**

**Zone 1:** DRC, Zambia, Malawi, bulk of Angola, most of Zimbabwe, greater part of Mozambique and south-western half of Tanzania.  
**Increased chances of normal to above-normal rainfall**

**Zone 2:** North-eastern half of Tanzania.  
**Increased chances of normal to above-normal rainfall**

**Zone 3:** South-western Angola, most of Namibia, western half of Botswana, most of central and western parts of South Africa and Lesotho.  
**Increased chances of normal to above-normal rainfall**

**Zone 4:** South-western Zimbabwe, eastern half of Botswana, north and central South Africa, eastern Lesotho, Swaziland and southern Mozambique.  
**Increased chances of normal to above-normal rainfall**

**Zone 5:** South-western fringe of Namibia and south-western South Africa.  
**Increased chances of normal to above-normal rainfall**

**Zone 6:** Western Madagascar.  
**Increased chances of normal to above-normal rainfall**

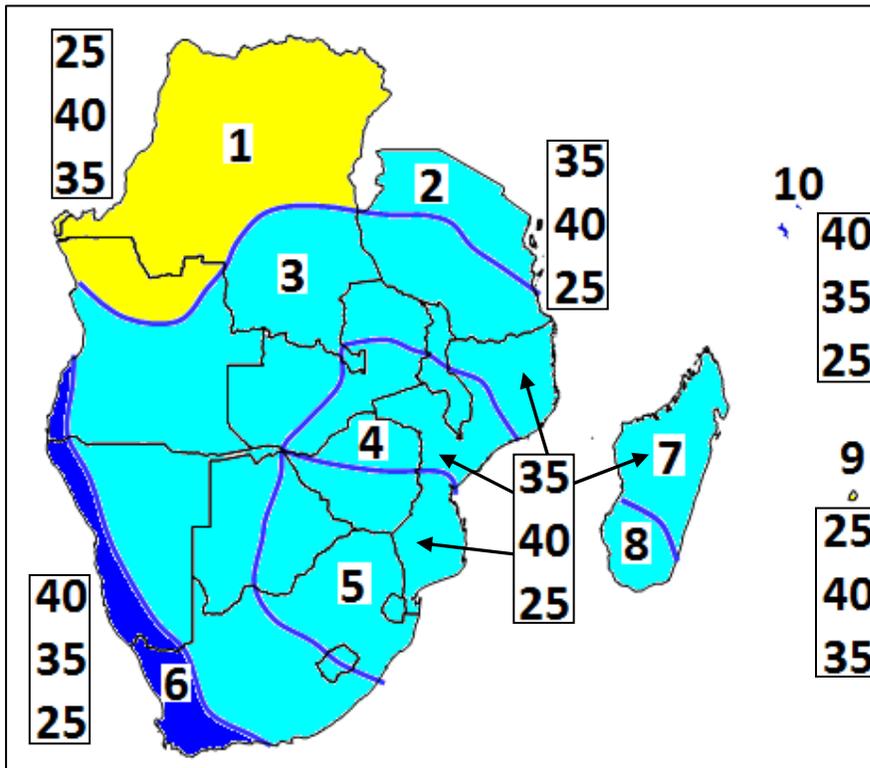
**Zone 7:** Eastern Madagascar.  
**Increased chances of normal to above-normal rainfall**

**Zone 8:** Southernmost Madagascar.  
**Increased chances of normal to above-normal rainfall**

**Zone 9:** Mauritius.  
**Increased chances of normal to above-normal rainfall**

**Zone 10:** Seychelles.  
**Increased chances of above-normal to normal rainfall**

**JANUARY-FEBRUARY-MARCH 2015**



*Fig 4: Rainfall forecast for January-February-March 2015*

**Zone 1:** Bulk of DRC and northernmost Angola.

**Increased chances of normal to below-normal rainfall**

**Zone 2:** North-eastern half of Tanzania.

**Increased chances of normal to above-normal rainfall**

**Zone 3:** Northern Mozambique, south-western half of Tanzania, northern Malawi, northern and western Zambia, southern DRC, bulk of Angola, most of Namibia, western half of Botswana, most of central and western parts of South Africa and western parts of Lesotho.

**Increased chances of normal to above-normal rainfall**

**Zone 4:** Southern Zambia, southern Malawi, northern half of Zimbabwe and central parts of Mozambique.

**Increased chances of normal to above-normal rainfall**

**Zone 5:** Southern half of Zimbabwe, eastern half of Botswana, north and central South Africa, eastern Lesotho, Swaziland and southern Mozambique.

**Increased chances of normal to above-normal rainfall**

**Zone 6:** South-westernmost Angola, western fringes of both Namibia and South Africa.

**Increased chances of above-normal to normal rainfall**

**Zone 7:** Bulk of Madagascar.

**Increased chances of normal to above-normal rainfall**

**Zone 8:** Southernmost Madagascar.

**Increased chances of normal to above-normal rainfall**

**Zone 9:** Mauritius.

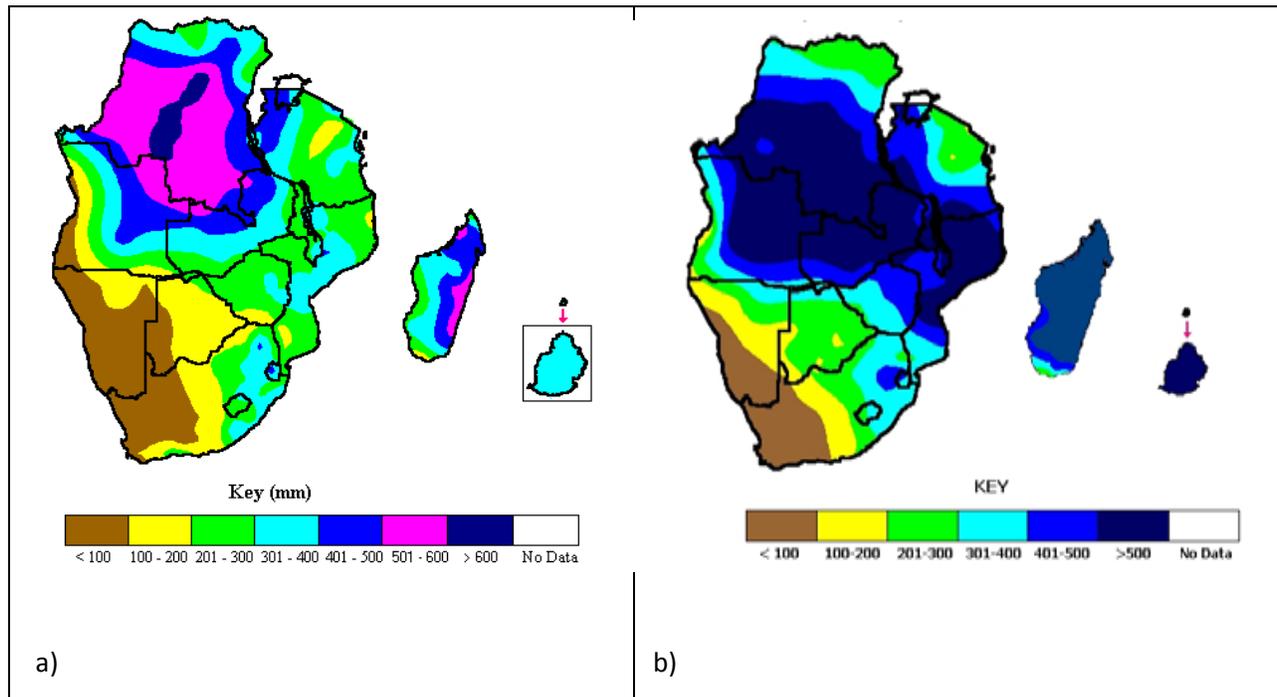
**Increased chances of normal to below-normal rainfall**

**Zone 10:** Seychelles.

**Increased chances of above-normal to normal rainfall**

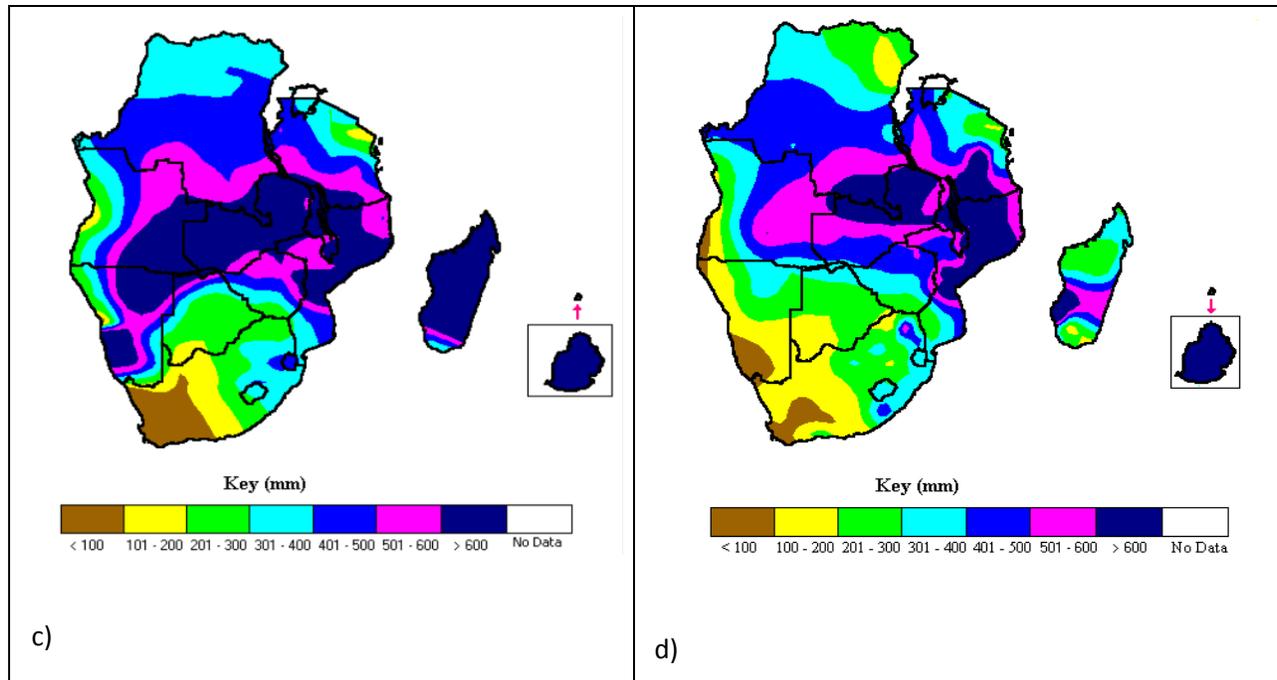
### ***FIGURE CAPTION***

It is emphasized that boundaries between zones should be considered as transition areas. Forecast information is provided only for countries that comprise the Southern Africa Development Community (SADC) region. The numbers for each zone indicate the probabilities of rainfall in each of the three categories, below-normal, normal and above-normal. The top number indicates the probability of rainfall occurring in the above-normal category, the middle number is for normal and the bottom number is for below-normal. For example in Figure 4, for Zone 6, there is a 40% probability of rainfall occurring in the above-normal category; a 35% probability in the normal category; and 25% probability in the below-normal category.



**Figure 5: Thirty-year mean rainfall over SADC countries (a) October-November-December , (b) November-December-January**

The long-term mean October-November-December rainfall increases from southwest to northeast over contiguous SADC in either case. Over Madagascar the rains increase from west to east, while the rains are more uniformly distributed in Mauritius, Figure 5(a). The November-December-January long-term mean total rainfall shows maxima of above 500 millimetres over much of Malawi, Zambia, Angola, southern half of DRC, central and northern Mozambique as well as Mauritius and Madagascar, Figure 5(b). The remainder of the region receives rainfall less than 400 millimetres gradually decreasing south-westwards to southwest South Africa and Namibia where the mean rainfall is below 100 millimetres. The legend shows the amounts in millimetres.



**Figure 5: Thirty-year mean rainfall over SADC countries (c) December-January-February and (d) January-February-March**

The long-term mean for December-January-February rainfall shows maxima of above 600 millimetres over much of Malawi, Zambia, Angola, southern half of DRC, central and northern Mozambique as well as Mauritius and Madagascar Figure 5(c). The remainder of the region receives rainfall less than 400 millimetres gradually decreasing south-westwards to southwest South Africa and Namibia where the mean rainfall is below 100 millimetres. The January-February-March shows a significant reduction in the rainfall received in most of the southern parts of the region with the central and eastern parts remaining wet, Figure 5(d). Mauritius shows sustained rainfall pattern over the while Madagascar shows a decline of rainfall in most parts except the extreme south western parts of the country.

### **SPONSORSHIP**

The Eighteenth Southern Africa Climate Outlook Forum was hosted by the Namibian Meteorological Service. Support was provided by Government of Namibia, SADC, African Development Bank and other partners.