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## OUTLOOK FOR MARCH — MAY 2012

### HIGHLIGHTS

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#### Outlook Highlights

- Normal to below-normal rains over all SADC region.
- Normal to above – normal rainfall is expected over northwestern of DRC, southern Tanzania, Malawi, northern Mozambique and Madagascar.

#### SUMMARY

*The rains have persisted in across most of SADC countries as season plateaus. Heavy rains, flash floods due to the tropical depression/cyclone invasions have occurred over Mozambique Malawi and Madagascar. Elsewhere tropical depressions/cyclones in the Indian Ocean have induced persistent dryness. Meantime, the March to May 2012 rainfall projections for SADC are mostly normal to below -normal. Meanwhile, in decadal scale (ten days average) coastal area of Mozambique will experience more rains. Details are on pages 3 and 4.*

#### LA NINA UPDATE

- Persistence of negative SST anomalies in the tropical Pacific.
- SOI continues slight positive
- Models project persistent cold ENSO conditions

#### La Niña status

- A mature La Niña continued during January 2012, as below-average sea surface temperatures (SST) persisted across the equatorial Pacific Ocean. The weekly SST indices remained near  $-1.0^{\circ}\text{C}$  in the Niño-3.4 and Niño-4 regions.
- **La Niña is likely to transition to ENSO-neutral conditions during March-May 2012.**

# LA-NIÑA UPDATE - ENSO-NEUTRAL CONDITIONS FORECAST

Most of dynamical and statistical model forecasts from advanced climate prediction centres as of February 2012 indicate a continuation of the mature La Nina to ENSO-neutral conditions in the next couple of months (Fig. 1). This trend will last the austral summer rains across the bulk of SADC.

Meantime, SST anomalies (departures from average) over Indian and Atlantic Basins reflected below average conditions in the vicinity of Madagascar and Mozambique Channel and in the central Atlantic ocean. It is warmer than normal over most remaining of Indian Ocean, (Fig. 2).

**Fig.1: Model forecasts for El-Niño event (Source: IRI)**

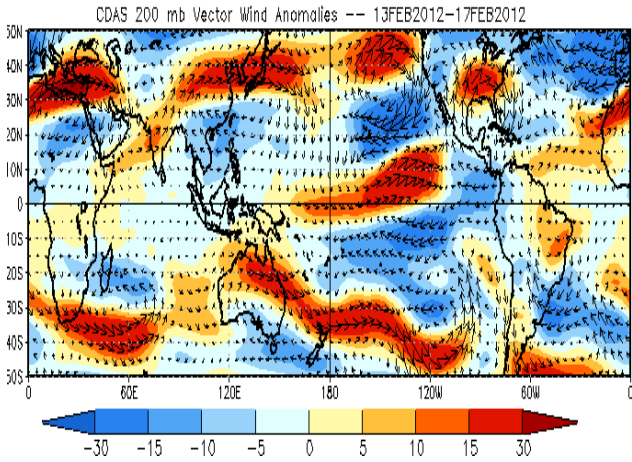


**Fig 2, Mean global oceans SST anomalies Jan-2012 (Source: NOAA)**

**Tropical cyclone in Indian Ocean**

The tropical cyclone season has been very active during period. There continues to be a cluster of evolving tropical depression/cyclone in the Indian Ocean stretching from east of Island States into the vicinity of SADC waters. The projected track of tropical depression Irina currently just north-west of Madagascar is expected to trudge into the Mozambique Channel. Due to their erratic nature, there is always uncertainty as to the exact track and intensity of these tropical storms as they approach the region.

Strong westerly wind anomalies over the Atlantic, Africa and the western Indian Ocean had substantially decreased (Fig.3).



**Fig 3, Wind anomalies 18 Jan-14 Feb 2012 (Source: NOAA)**

### Rainfall performance of the ongoing season

There has been largely below-normal rains over most of the region since the beginning of the season. The diminished rainfall performance has resulted in deficits in many areas of the region. Localized heavy rains were, however, recorded over some parts in the subregion since the commencement of the season.

Most of the northwestern part and southeastern of the subregion have received less than 80% of Normal. The bulk of which are Angola, south of DRC, Zambia, south of Botswana, northern part of South Africa and south of Mozambique. However, some area over Tanzania, Namibia and northern of Botswana have received more than 150% of Normal rainfall. The rest of the region has performed between 80 to 125% of Normal. This latter condition depicts the normal rainfall condi-

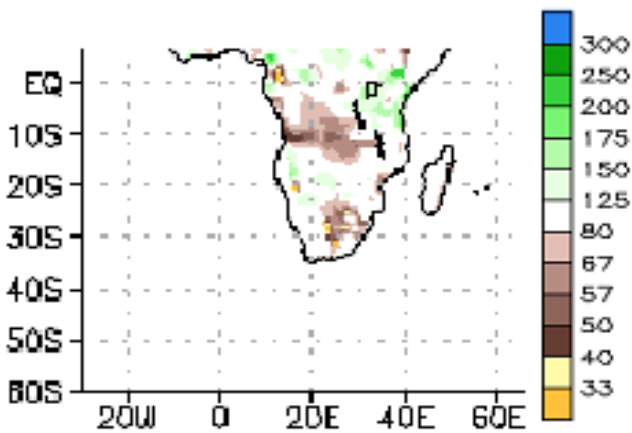


Fig. 4. Accumulated precipitation % of Normal 24 October 2011 to 24 February 2012 (Source: NOAA/CPC)

tions. The deficient rainfall conditions risk to continue during March—May 2012 rainy period.

### THIRTY—YEAR MEAN RAINFALL (1971-2000) FOR MARCH- MAY

The mean total rainfall map shows maxima of about 401-500 mm over northern DRC and parts of Tanzania, much of Malawi, Zambia, Angola, southern DRC, central and northern Mozambique, 501-600 mm in Mauritius. Over 600 mm across eastern Madagascar. The remainder of the region receives rainfall less than 300 mm decreasing southwestwards up to southwest South Africa and Namibia where the mean rainfall is well below 100 mm (Fig. 5).

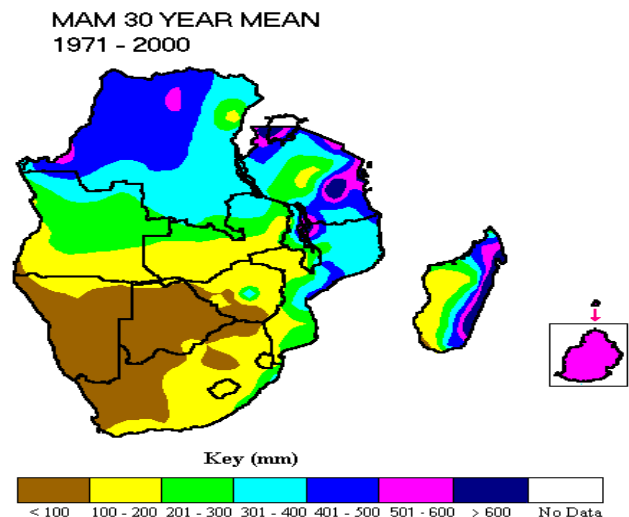


Fig. 5. Mean 30-year (1971-2000), March to May rainfall for SADC countries

*SADC CSC in conjunction with other partners will continue to closely monitor the status of evolution of El Niño and relevant information and updates*

## RAINFALL FORECAST (FEBRUARY—APRIL 2012)

### FORECAST DETAILS

**Zone I:** (Northern half of DRC)

**Likelihood of normal to above-normal rainfall**

**Zone II:** (Southern half of DRC, north Tanzania, northeastern Angola and northern Zambia)

**Likelihood of normal to below-normal rainfall**

**Zone III:** (South Tanzania, Malawi, north of Mozambique and extreme eastern Zambia)

**High likelihood of normal to above-normal rainfall**

**Zone IV:** (Southern half of Angola, southwest Zambia, northern half of Zimbabwe, central parts of Mozambique, extreme northern Botswana and northernmost Namibia)

**High likelihood of normal to below-normal rainfall**

**Zone V** (Extreme southern Mozambique, Swaziland, Lesotho and northeastern part of South Africa)

**Likelihood of normal to below-normal rainfall**

**Zone VI** (Bulk of Namibia, most of Botswana, southern half of Zimbabwe, bulk of South Africa)

**High likelihood of normal to below-normal rainfall**

**Zone VII** (Western half of Madagascar)

**High likelihood of normal to above-normal rainfall**

**Zone VIII:** (Eastern half of Madagascar)

**High likelihood of normal to above-normal rainfall**

**Zone IX:** (Mauritius):

**High likelihood of Normal to below-normal rainfall**

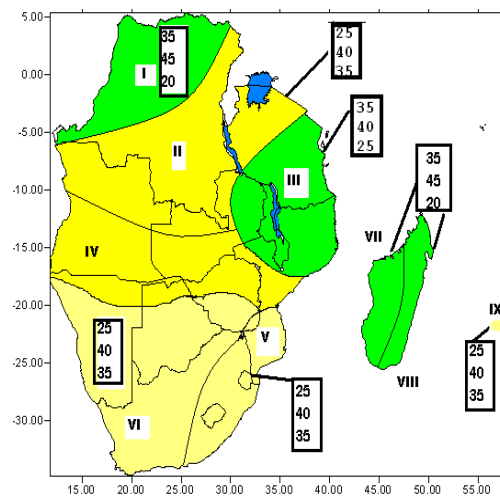


Fig 6. SADC rainfall outlook for March to May 2012

### Map caption

The number for each zone indicate the probabilities of rainfall in each of the three categories: Above normal, Normal and Below normal (Fig. 9). The top number indicates the probability of rainfall occurring in the Above-normal category, the middle number for Normal and the bottom number for Below-normal. For example, in the case of Zone III there is a 35% probability for rainfall occurring in the above-normal category; a 40% probability for rainfall in the normal category; and 25% probability for rainfall for a below-normal category. It is emphasized that boundaries between zones should be considered as transition zones.

**Note:** This update is relevant only for three monthly time scales and relatively large areas. Local to month to month variations may occur.

The users are strongly advised to contact their NMHSs for interpretation of this Outlook, finer details, updates and additional guidance.

### **Acknowledgements:**

SADC NMHSs

Global climate monitoring and prediction centres

WMO