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OUTLOOK FOR FEBRUARY—MARCH— APRIL 2017

HIGHLIGHTS

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GLOBAL SST FORECAST

- The Niño-Southern Oscillation remains neutral :neither El Niño nor La Niña.
- Positive SST anomalies persisted over the central and southern Indian Ocean.
- Sea surface temperatures remain very warm across most of the Indian Ocean.

NOVEMBER 2016 – JANUARY 2017 RAINFALL HIGHLIGHTS

- The southern half of continental SADC region has received **normal to above-normal rainfall** in the current rainfall season.
- The northern and eastern parts of contiguous SADC are still under **normal to below-normal rainfall** conditions.
- **Above-normal rainfall** was experienced over Botswana, Lesotho, Namibia, south Zambia, Zimbabwe, northern South Africa, central and southern Mozambique and Swaziland.
- **Below-normal rainfall** conditions dominated Tanzania, northern Angola, northern half of DRC, north Mozambique and the Island State of Madagascar.

FMA 2017 RAINFALL OUTLOOK SUMMARY

For the period February to April 2017, there is a high likelihood of:

- **Above-normal rainfall over Zimbabwe, most of Botswana, south of Mozambique and northern South Africa;**
- **Normal to above-normal rainfall across continue in the bulk of continental SADC.**
- **Normal to below-normal rainfall in the northern parts of the region.**

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EL NINO SOUTHERN OSCILLATION

Most models maintain neutral El Nino Southern Oscillation (ENSO) conditions up to June 2017 (Fig.1). Although most ENSO indicators are firmly within their neutral range, cloud and rain rainfall patterns continues to show weak La Niña characteristics.

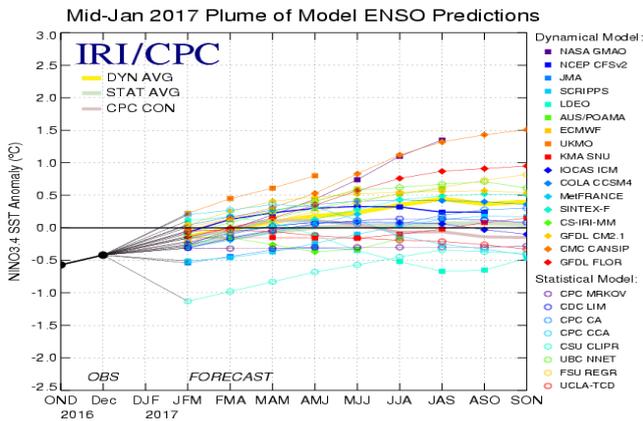


Fig.1. Multi-model ENSO forecasts (Source: IRI CPC/NOAA)

The warm SST anomaly over the Mozambique Channel assisted the development of tropical cyclone called Dineo which maintained torrential rains across the eastern portions of contiguous SADC. Dineo caused fatalities in south Mozambique. It has been downgraded to the tropical depression by 16 February as it traversed Zimbabwe, east Botswana and northern South Africa (Fig. 2). The potential of flooding still remains across sections of the subregion.

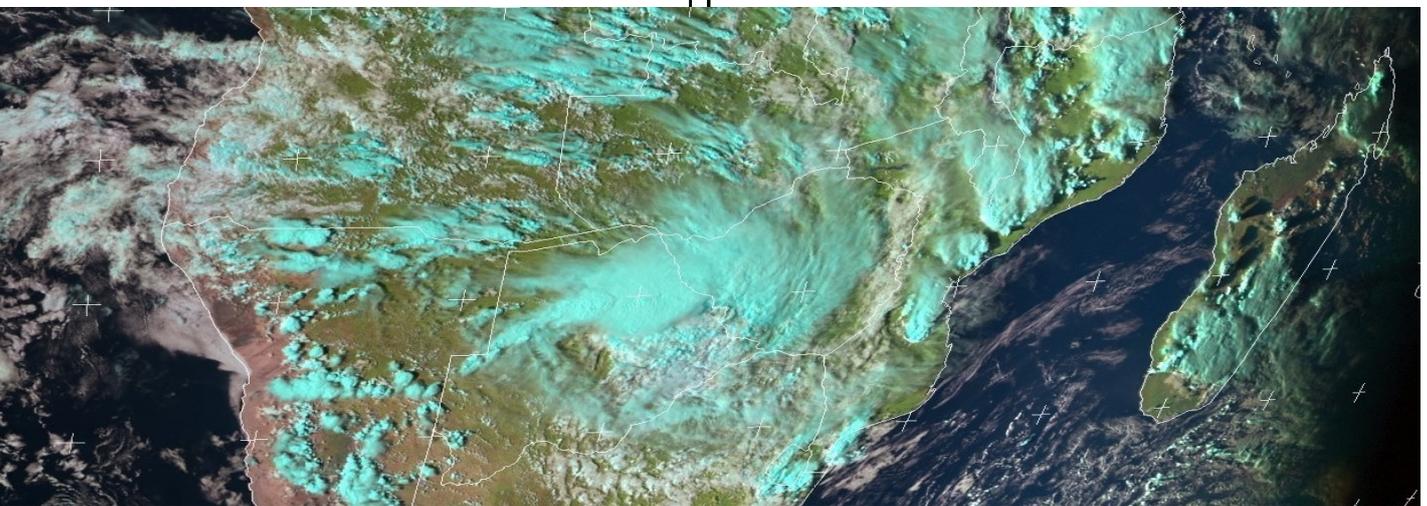


Fig. 2. Satellite image on 17 February 2017, depicting a tropical cyclone Dineo over Zimbabwe Source: EUMETSAT]

RAINFALL REVIEW

1 November 2016 — 30 January 2017

During the last 90 days, the SADC region experienced above-normal rainfall over localized areas in DRC, the bulk of Namibia, Botswana, Zimbabwe, northern and eastern South Africa, western Zambia, central and southern Mozambique. In contrast, below-normal rainfall was observed over portions of Angola and DRC, northern half of Malawi, western and extreme south of South Africa, northern Mozambique, eastern Zambia, Tanzania and Madagascar (Fig.3). The centre of inter-tropical convergence zone (ITCZ) is now moving northeastern parts of SADC as it prepares to exit southern portions the region. The medium-range forecast is presented in Fig. 4, next page.

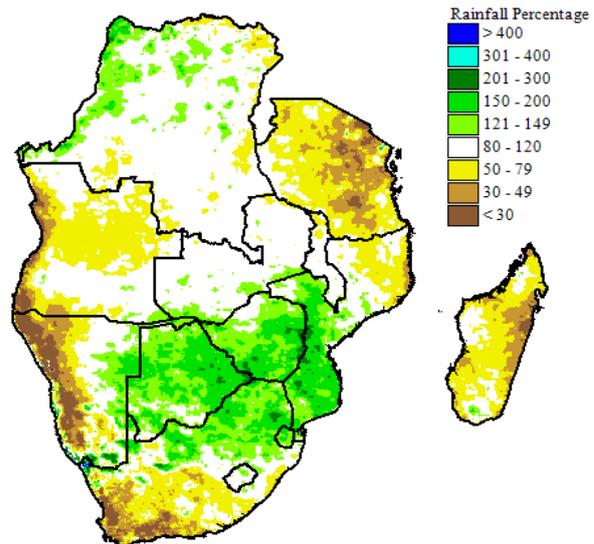


Fig. 3. Precipitation departure from normal (%), 1 November 2016 — 30 January 2017

SHORT-TERM FORECAST (17 February to 28 February 2017)

The cooperative interaction of the moisture-laden westerly troughs and the Intertropical convergence zone (ITCZ) is going to favour Botswana, Malawi, Zimbabwe, Zambia, Malawi, northern Mozambique, northern South Africa and Madagascar, with more rains. Suppressed rainfall conditions will predominate over DRC, Angola, Tanzania, extreme north of South Africa and extreme southern Mozambique (Fig.4.a and b).

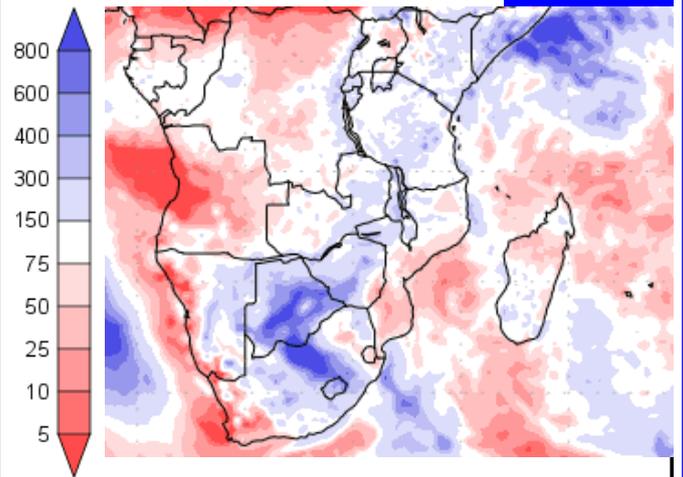


Fig.5: Precipitation (% of normal) forecast for 17 - 25 Feb 17 (source: IGES/COLA)

SADC mean rainfall for FMA for 1971-2000

The long-term mean for February-March-April rainfall shows maxima of above 600 millimetres over much of Malawi, extreme southern of DRC, central and northern Mozambique as well as Island States of Mauritius and northern Madagascar, Fig. 6. The remainder of the region receives rainfall of less than 300 millimetres which gradually decreases southwestwards to southwest South Africa and Namibia where the mean three-month total rainfall is below 100 millimetres.

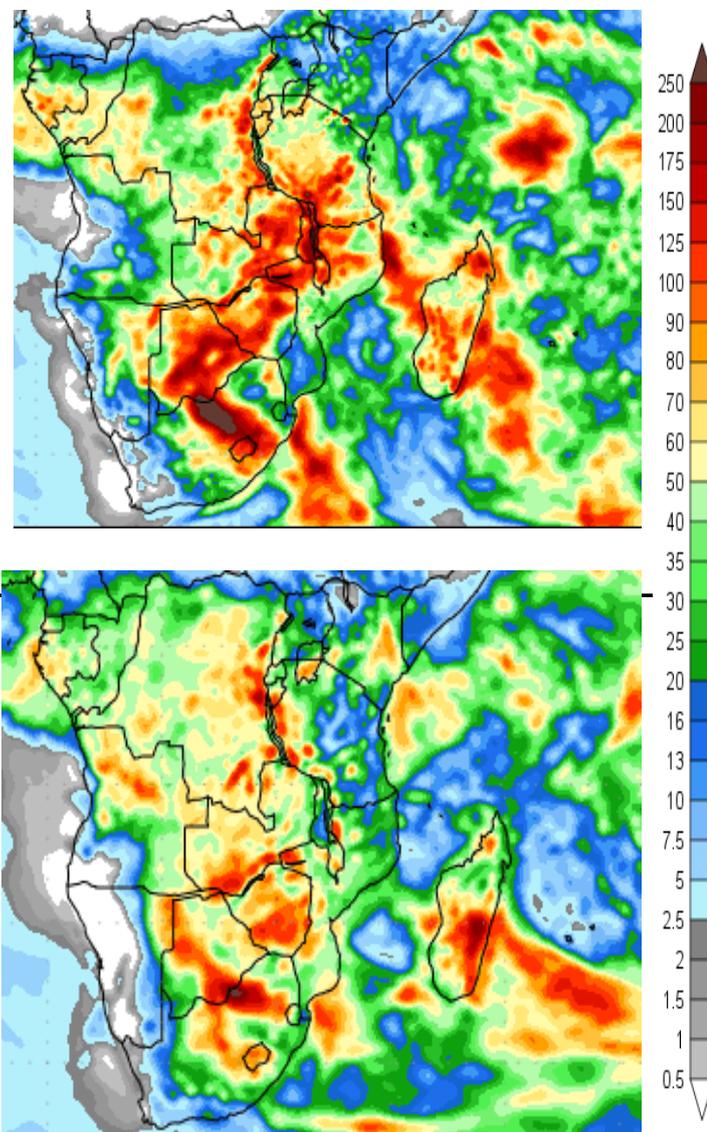


Fig.4. Precipitation (mm) forecast for (a, top) 17-24 Feb ; (b, bottom) 25 Feb to 5 March 20 17 (source: IGES/COLA)

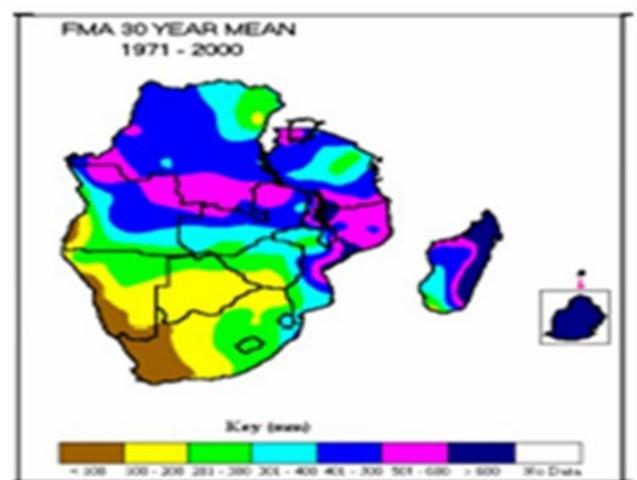
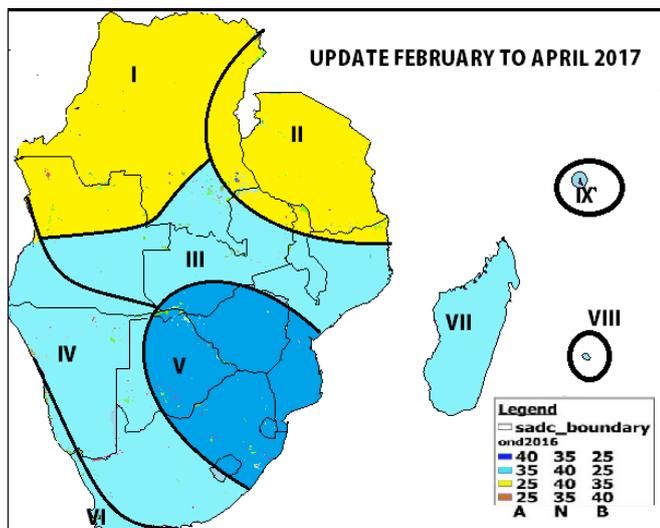


Fig. 6. SADC mean rainfall (mm) February to April (1971-2000)



FMA 2016 FORECAST DETAILS

For the period February to April, 2017, southeastern of conterminous SADC region is expected to receive **above-normal rainfall**; the northern parts are expected to receive **normal to below-normal rainfall** conditions. Island States and the remainder of contiguous SADC are expected to receive **normal to above-normal** rainfall.

Zone I: (North-western of DRC, northern Angola).

Increased chances of normal to below-normal rainfall

Zone II: (Tanzania, extreme northeastern DRC, north of Malawi, Mozambique and northernmost Zambia).

Increased chances of normal to below-normal rainfall

Zone III: (South-eastern Angola, extreme southern DRC, Northern Mozambique, bulk of Zambia and Malawi).

Increased chances of normal to above-normal rainfall

Zone IV: (South-western parts of Angola, most of Namibia, north and central South Africa, western Lesotho and south-western Botswana).

Increased chances of normal to above-normal

rainfall

Zone V: (South-easternmost Zambia, Zimbabwe, eastern Botswana, northern and eastern parts of South Africa, eastern Lesotho, Swaziland and southern Mozambique).

Increased chances of above-normal rainfall

Zone VI: (Western fringes of Namibia and western of South Africa).

Increased chances of normal to above-normal rainfall

Zone VII: (Madagascar).

Increased chances of normal to above-normal rainfall

Zone VIII: (Mauritius).

Increased chances of normal to above-normal rainfall

Zone IX: (Seychelles)

Increased chances of normal to above normal rainfall

Notes:

1. The numbers associated with color in the legend (Fig. 7) indicate the probabilities of each of the three categories: Above-normal, Normal and Below-normal relative to the 1971-2000 climatological baseline (Fig. 6). 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 category.
2. The users are strongly advised to contact **respective NMHSs** for interpretation of this Outlook, finer details, updates and additional guidance.
3. **Acknowledgements:**
 - SADC NMHSs,
 - Global climate monitoring and prediction centres
 - WMO