



SADC Drought Monitoring Centre
 P/ Bag 0095 ,
 Gaborone ,
 Botswana
 Tel : + 267 - 3953411/13
 Fax + 267 - 3972848 / 3181970
 E-Mail : dmc@sadc.int
 Web : www.dmc.co.zw

24 FEBRUARY, 2009

Issue no. 05

OUTLOOK FOR MARCH — MAY 2009

HIGHLIGHTS

Inside this issue:

El-Niño Update	2
Mean rainfall for DJF	3
Model Forecast of ENSO	3
SOI and SST anomalies	3
Forecast details	4
Rainfall outlook	4

Outlook Highlights

- Above-normal rains over north-east continental SADC, bulk of Madagascar.
- Normal to above – normal rainfall is expected over most parts of continental SADC, south and eastern Madagascar and Mauritius.
- Northern DRC and bulk of Tanzania, and the southwest of contiguous SADC should experience normal to below normal rainfall

SUMMARY

The rains have persisted in across most of SADC countries as season reaches peak. Flash floods have occurred in places. Meantime, the March to May 2009 rainfall projections for SADC are mostly normal to above-normal. Persistence of widespread rains will cause flash floods from time to time. Details are on pages 3 and 4.

EL-NIÑO /LA NINA UPDATE`

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

El Nino -Southern Oscillation

SSTs throughout the central and eastern tropical Pacific have become slightly below-average in the past twelve weeks. The low level zonal wind anomalies along the equatorial Pacific. The Southern Oscillation index, and the thermocline depth anomalies all have been near average during the last few months. A weak La Nina episode is now cited in many advanced climate centre as having set in.

Meantime, most dynamical and statistical forecast models, indicate continued likelihood of weak cold ENSO into austral autumn.

ENSO Update - Weak La Nina persisting

Most of dynamical and statistical model forecasts from advanced climate prediction centres as of February 2009 indicate a continuation of the weak La Nina to ENSO-neutral conditions in the next couple of months (Fig. 3). This trend will last the austral summer rains across the bulk of SADC.

Meantime, SST anomalies (departures from average) over Pacific Basin reflected below average conditions in Nino regions, marking the continuation of weak cold episode. It is warmer than normal over most of Indian Ocean, Fig. 4.

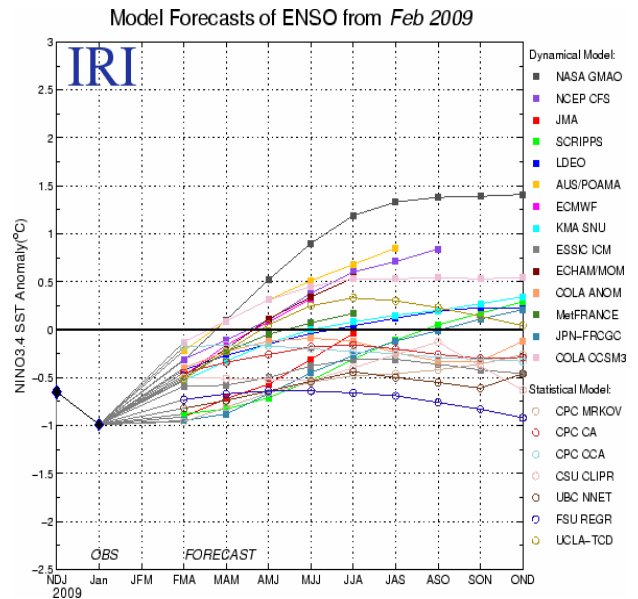


Fig.3: Model forecasts for El-Niño event (Source: IRI)

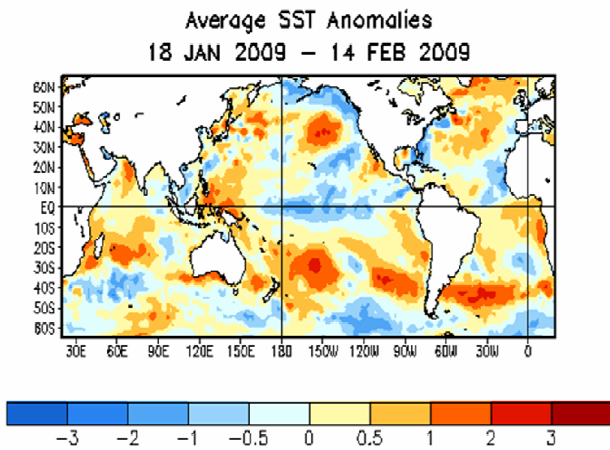


Fig 4, Mean global oceans SST anomalies 18

The persistent warmer-than-normal SST conditions over the equatorial and southwest Indian Ocean are conducive to the formation of tropical disturbances. These have so far led to periods of very heavy rainfall across most of SADC. This allowed triggering of tropical cyclone activity. Thus flash flooding episodes remain a threat across SADC region.

SADC DMC in conjunction with other partners will continue to closely monitor the status of evolution of El-Niño and relevant information and updates will be issued from time to time.

Meanwhile, the current Southern Oscillation Index (SOI) has maintained positive values since June 2008, Fig. 5. The current pattern of SOI is closest to the one during 1999/2000 season.

The SST anomalies over Nino 3.4 region, are shown in Fig. 6. It can be seen that the SST

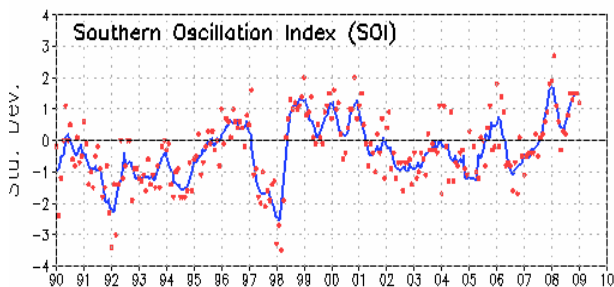


Fig. 5. SOI from 1989 to Jan 2009

anomalies for 2008 show below-average conditions. Thus marking the evolution of weak cold ENSO (La Nina).

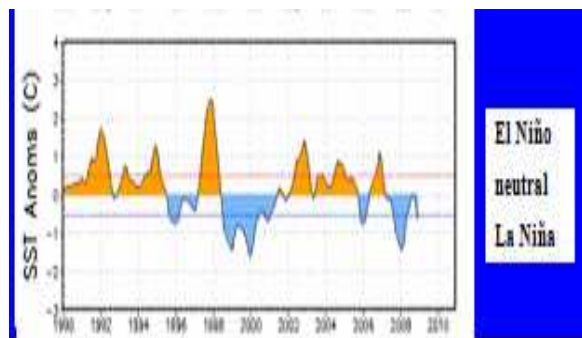


Fig. 6. SST anomalies in Nino 3.4 region from 1990 to Jan 2009 (Source: NOAA)

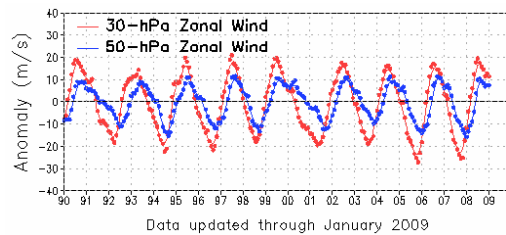


Fig. 7. QBO from 1989 to Jan 2009 (Source: NOAA)

The Quasi-Biennial Oscillation (QBO) has been decreasing and reversing from its westerly peak since September, 2008, Fig. 7. It should swing gradually into an easterly phase.

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 below 100 mm (Fig. 8).

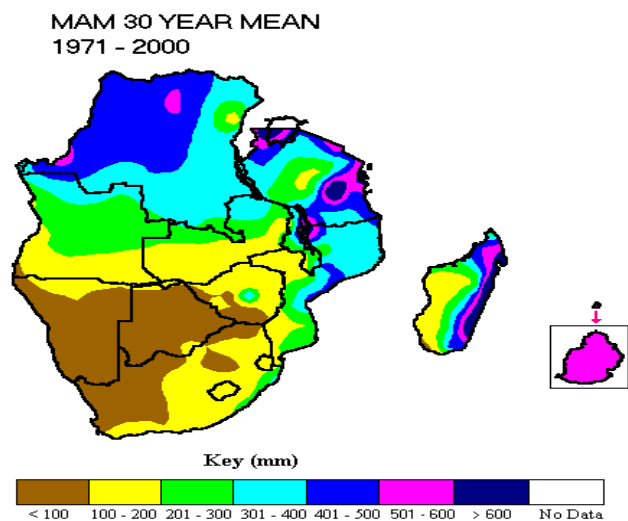


Fig. 8. Mean 30-year (1971-2000), March to May rainfall for SADC countries

RAINFALL FORECAST (MARCH—MAY 2009)

FORECAST DETAILS

Zone I: (Northern half of DRC)

Likelihood of normal to below-normal rainfall

Zone II: (Bulk of Tanzania)

Likelihood of normal to below-normal rainfall

Zone III: (Angola, northernmost Namibia, bulk of southern half of DRC, northernmost Botswana, western half of Zambia, northern and eastern Zimbabwe, southern Mozambique, Swaziland, Lesotho and eastern South Africa)

High likelihood of normal to above-normal rainfall

Zone IV: (Southern tip of DRC, eastern Zambia, northeastern flank of Zimbabwe, northern Mozambique, Malawi and southwestern fringe of Tanzania)

High likelihood of above-normal to normal rainfall

Zone V (Bulk of Namibia, most of Botswana, southwestern Zimbabwe and rest of South Africa)

Likelihood of normal to below-normal rainfall

Zone VI (Bulk of Madagascar)

High likelihood of above-normal rainfall

Zone VII (Southern and eastern Madagascar)

High likelihood of normal to above-normal rainfall

Zone VIII: (Mauritius)

High likelihood of normal to above-normal rainfall

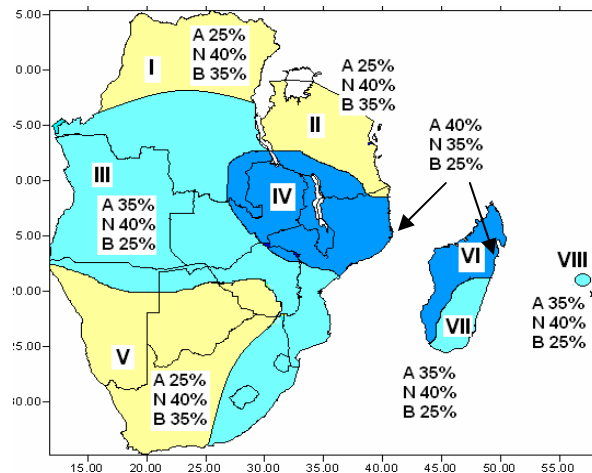


Fig 9. SADC rainfall outlook for March to May 2009

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