



<u>Summary:</u> The tenth Southern Africa Regional Climate Outlook Forum (SARCOF-10) was held from the 6-7 September 2006 in Gaborone, Botswana. The forum objective was to generate a consensus forecast regarding the prospects of the 2006/2007 rainy season. For the period, October to December 2006, northern parts of the SADC region covering the DRC, north-eastern and south-central parts of Angola, northern Tanzania, northern Zambia, southern Malawi, part of Madagascar, part of northern Mozambique, most of Namibia and South Africa, and the whole of Lesotho have an increased chance of receiving normal to above-normal rainfall (figure 1). The remaining parts of Tanzania, most of South Africa and the coastal areas and Swaziland, most of Botswana, parts of Angola, western areas of Namibia, north-western part of Madagascar and Mauritius have increased chances of receiving normal to below-normal rainfall of the rainfall season (October to December 2006).

October to December 2006 Rainfall Forecast



Higher probability of normal to below normal in first half of season

The forecast for the first half of the season calls for much of the sub-region having greater chances of experiencing normal to below normal rainfall, in areas that include a large portion of the central parts of the region, as well as much of Tanzania (Figure 1, brown areas). Because this is a probabilistic forecast, there is still a significant chance that above-normal rainfall can occur in these areas, but this is not as likely. Areas in blue in Figure 1 are tipped by the forecast to be more likely to receive normal to above-normal rainfall.

January to March 2006 Rainfall Forecast



Higher probability of normal to above normal in second half of season

The second half of the season has been forecast to have greater chances of experiencing normal to above normal rainfall in the north-eastern half of the region (figure 2, blue colours), and greater chances of normal to below-normal rainfall in much of the south western half of the region (figure 2, brown colours). The January to March period is the time during which the greater amount of rainfall occurs in most parts of the SADC region.

This **Special issue** of the Agromet Update is a joint product of the SADC Agricultural Information Management System-Regional Remote Sensing Project and USAID FEWSNET **Financial assistance for the production of the bulletin is provided by the European Commission through FAO** Food Security Early Warning System

Figure 3 Figure 4 Figure

Further Analysis of the Forecast: Combining Oct-Dec with Jan-Mar

A combined analysis of the forecast brings together the Oct-Dec and the Jan-Mar forecasts. This analysis shows that there are some areas where normal to below-normal rainfall is more likely for the entire season from October 2006 to March 2007. This is highlighted in brown colours in Figure 3, and includes northern South Africa, most of Botswana, south-western Zambia, western Zimbabwe, and eastern and northern Angola. In these areas, extra precaution has to be taken to consider measures that will enable coping with extended dryness, within the scope of the regular seasonal practices in the different areas. However, any planning still needs to take into account the possibility that above normal rainfall can occur, though it is less likely. It is important to keep in mind that this is a probabilistic forecast, and make contingencies for the less-likely scenarios also being realized.

There are other areas where an outcome of normal to above-normal rainfall is more likely throughout the growing season (deep blue colours, Figure 3). These areas include most of DRC, parts of northern Tanzania, northern Zambia, southern and central Malawi, parts of northern Mozambique, and much of Madagascar. These areas can generally hope/plan for a good season, but again, contingencies should be made for alterative outcomes, in case the less-likely below-normal scenario is realized.

In some areas, there is a greater likelihood of above-normal rainfall in the first half of the season. and a areater likelihood of normal-to-below normal rainfall in the second half of the season. These areas are denoted by purple colours in Figure 3. How much of an impact this can have is determined in part by when the rains start and end. If the rains start early, like they usually do in Angola, this situation is more positive, as crops would have a better chance of reaching maturity, but in areas like much of Namibia where the season tends to start later, this could be a cause for concern. Figure 4 shows the average start of the rainfall season. The latter part of the season is more critical for maize, as in this period the crop can be most negatively affected by reduced moisture.

Figure 4: Average Start of Rainfall Season



In other areas, there is a greater likelihood of normal to below-normal rainfall in the first half of the season, and normal to above-normal rainfall in the second half of the season (these areas are indicated by light-blue colours, Figure 3). If below-normal rainfall does become a reality during the first part of the season, this may create challenges in crop establishment which may lead to poor performance of crops. This challenge will be exacerbated if the farmers and those providing relief seed provide late maturing varieties. These areas that may be concerned, deriving from the forecast, include the entire southern-most and western-most strip of the region (most of which is traditionally dry areas), western/central Madagascar, southern and central Mozambique, most of Zimbabwe, northern South Africa, central Zambia, much of Tanzania, northern Malawi, and part of northern Mozambique. Apart from the southern and western strip, most of these areas normally have their rains starting around mid-to late-November. As such, the forecast has a strong bearing on both halves of the season though the second half of the season is more critical for maize.

SADC DMC cautions users that the forecast is only relevant at seasonal time-scales and relatively large areas, and may not capture the variations that may occur at locally and from month-to-month. Users are advised to contact their national meteorological services for interpretation and further updates.