## HIGHLIGHTS

- More areas received light rains during 21 - 30 November 2003...
- Land preparation intensified as planting of crops start...
- Further improvement in rainfall distribution anticipated ..


## 1. WEATHER SUMMARY

### 1.1 RAINFALL

The last ten-days of November 2003 indicated improvement in rainfall distribution and amounts mainly in southern and some parts of central Malawi. Some areas registered up to three rainy days during the period. However, sporadic rains continued to be experienced in the north. The heaviest rainfall amounts were registered on $30^{\text {th }}$ November when 52 mm was reported at Nkhotakota while Lilongwe International Airport (LIA) had 37 mm . Light rainfall amounts were reported elsewhere.

### 1.2 MEAN AIR TEMPERATURE

Hot conditions continued to be experienced in the country with very hot air temperatures confined to Lakeshore and Shire valley. The daily average maximum temperatures ranged from $26^{\circ} \mathrm{C}$ at Dedza to $38^{\circ} \mathrm{C}$ at Ngabu while minimum temperatures ranged from $15^{\circ} \mathrm{C}$ at Mzuzu to $26^{\circ} \mathrm{C}$ at Ngabu and Monkey Bay. During the period, the highest absolute maximum temperature was registered at $\mathrm{Ngabu}, 42^{\circ} \mathrm{C}$ while the lowest was $29^{\circ} \mathrm{C}$ reported at Dedza (Table 1).

### 1.3 MEAN SUNSHINE HOURS

Most parts of Malawi experienced bright sunshine. Longer sunshine hour durations ranged from 10 at Salima along the Lakeshore to 7.1 hours per day at Chileka.

### 1.4 MEAN DAILY WIND SPEEDS

Mean wind speeds observed at height of 2 meters above the ground were in the range of $1-4$ metres per second over the country. Chileka registered the highest mean value of $3.6 \mathrm{~m} / \mathrm{s}$ followed by Ngabu which recorded $3.2 \mathrm{~m} / \mathrm{s}$ (Table 1).

### 1.5 MEAN RELATIVE HUMIDITY

During the period under review, daily average relative humidity values indicated a gradual increase over most areas. This may be attributed to fairly moist air that
covered most parts of the country during the period under review. The daily average relative humidity ranged from $47 \%$ at Kasungu to $69 \%$ at Thyolo.

## 2. AGROMETEOROLOGICAL ASSESSMENT

During the last ten-days of November 2003 more areas experienced rains. However, the rainfall amounts over most areas were generally light except for isolated areas in the south and central Malawi where substantial rainfall amounts were received prompting some farmers to begin planting crops. Most farmers are eagerly waiting for main planting rains which this season like last season has slightly delayed. Looking at history the start of the rains is more of a building process starting with very isolated showers and moving towards well distributed rain-showers over time. The current situation seems to follow this pattern and shorter term outlooks indicate further improvement in rainfall distribution in the next ten-days. Farmers are therefore urged to speedup land preparations if they are to plant with main rains which are expected any time from now. So far indications are that most areas in the south and part of central Malawi might experience a uniform delayed start of mains this season particularly if the main rains will start with establishment of both Congo air mass and Inter Tropical convergence Zone.

## 3. FORECAST FOR 1 - 10 <br> DECEMBER 2003

During the period $1-10$ December 2003, both a convergence a head of surge and fairly moist and unstable Congo air mass are expected to remain active over Malawi during the forecast period. These rain systems are likely to cause a further improvement in rainfall distribution and amount over the country during the outlook period.

| TABLE 2:AGROMETEOROLOGICAL PARAMETERS |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DEKAD 3 OF NOVEMBER 2003 |  |  |  |  |  |  |  |  |  |  |
| STATION | MAX TEMP <br> $\left({ }^{\circ} \mathrm{C}\right)$ | MIN TEMP <br> $\left({ }^{\circ} \mathrm{C}\right)$ | ABS <br> MAX <br> $\left({ }^{\circ} \mathrm{C}\right)$ | ABS <br> MIN <br> $\left({ }^{\circ} \mathrm{C}\right)$ | WIND <br> SPEED <br> m/s | RH <br> \% | SUN SHINE HOURS | Eo <br> mm <br> per <br> day | Et <br> mm <br> per <br> day | RAD- <br> TION <br> cal <br> cm- ${ }^{2}$ <br> p/day |
| BOLERO | 32.9 | 21.0 | 35.1 | 16.9 | 1.5 | 52 | N/A | 5.0 | 4.3 | N/A |
| CHICHIRI | 30.2 | 20.3 | 33.5 | 18.5 | 1.8 | 58 | 7.4 | 7.3 | 5.8 | 9.4 |
| CHILEKA | 33.3 | 22.6 | 37.0 | 19.1 | 3.6 | 50 | 7.1 | 8.5 | 7.0 | 9.2 |
| NTAJA | 34.0 | 23.0 | 36.8 | 21.6 | 2.5 | 51 | 8.8 | 8.7 | 7.1 | 10.3 |
| CHITEDZE | 31.7 | 19.3 | 33.9 | 17.9 | 0.9 | 51 | N/A | 4.7 | 4.0 | N/A |
| CHITIPA | 31.1 | 17.9 | 32.5 | 17.3 | 2.8 | 57 | N/A | 5.0 | 4.3 | N/A |
| DEDZA | 26.3 | 19.7 | 29.0 | 16.2 | 1.2 | 56 | N/A | 4.4 | 3.8 | N/A |
| KASUNGU | 32.4 | 20.1 | 34.9 | 18.4 | 2.8 | 47 | 9.8 | 8.7 | 7.0 | 10.9 |
| KARONGA | 35.0 | 25.0 | 37.0 | 23.5 | 2.1 | 52 | 9.6 | 9.1 | 7.4 | 10.7 |
| LIA | 31.6 | 18.0 | 34.1 | 14.0 | 2.0 | 53 | 9.0 | 7.8 | 6.2 | 10.4 |
| MAKOKA | 30.3 | 20.6 | 32.7 | 19.6 | 1.7 | 61 | 8.9 | 7.8 | 6.2 | 10.4 |
| MANGOCHI | 35.6 | 24.4 | 37.5 | 22.8 | 2.0 | 49 | 9.3 | 9.0 | 7.3 | 10.6 |
| MIMOSA | 32.9 | 20.2 | 34.9 | 17.6 | 1.3 | 62 | N/A | 4.6 | 3.9 | N/A |
| MONKEY BAY | 35.1 | 25.6 | 37.1 | 23.8 | 2.5 | 49 | N/A | 5.9 | 5.2 | N/A |
| MZIMBA | 30.9 | 19.0 | 32.5 | 16.9 | 1.2 | 56 | N/A | 4.6 | 3.9 | N/A |
| MZUZU | 30.3 | 15.4 | 31.8 | 13.8 | 1.9 | 59 | N/A | 4.5 | 3.9 | N/A |
| NGABU | 38.3 | 25.8 | 42.0 | 23.0 | 3.2 | 53 | 8.7 | 9.8 | 8.1 | 10.2 |
| NKHATA BAY | 35.5 | 20.8 | 37.5 | 19.6 | N/A | 53 | N/A | N/A | N/A | N/A |
| NKHOTAKOTA | 33.7 | 24.4 | 35.9 | 22.9 | N/A | 55 | N/A | N/A | N/A | N/A |
| SALIMA | 35.4 | 24.9 | 37.1 | 23.9 | 1.8 | 48 | 10.2 | 9.1 | 7.3 | 11.2 |
| THYOLO | 31.6 | 19.9 | 35.8 | 16.4 | 1.9 | 69 | N/A | 4.6 | 3.9 | N/A |

## Glossary of some terms on this table

- $E_{O}=$ Potential Evaporation
- $\quad \mathrm{E}_{\mathrm{T}}=$ Potential Evapotranspiration and $\mathrm{RH}=$ Relative Humidity
- Mean Temperature of the day $=($ Max of the day + Min of the same day $) / 2$
- $\quad \operatorname{ABS} \operatorname{Max}(\operatorname{Min})=$ Absolute Maximum (minimum) is the highest (lowest) of maximum (minimum) temperatures observed for a given number of days (calendar month) of a specified period of months (years).
- N/A means data is not available

