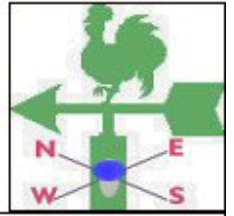




TANZANIA METEOROLOGICAL AGENCY



MONTHLY WEATHER BULLETIN

ISSN No: 0856-0919, Volume 12 Issue No 11

November 2011

HIGHLIGHTS

- Adequate soil moisture supply obtained over bimodal sector with most crops at mid vegetative phase and in good condition.
- Over unimodal sector final land preparations and planting were the main field activities.

SYNOPTIC SITUATION

During the month of November 2011, southern hemisphere high pressure cells, St Helena and Mascarene anticyclones were moderately intense during the first half, becoming weak during the second half of the month. On the other hand, the Siberian high and the associated Arabian ridge gradually became more intense during the first half of the month and relaxed later during the month. This resulted into gradual southward pushing of the zonal arm of the rain-making mechanism i.e. Inter-Tropical Convergence Zone (ITCZ). Cool Sea Surface Temperature (SSTs) conditions were established over the Equatorial central eastern Pacific, while neutral to cool SSTs were observed over eastern Indian Ocean (areas around Indonesia). Slight Warm SSTs were also observed over the central equatorial Indian Ocean during the month of November 2011. Easterly to southeasterly low level winds prevailed over eastern parts of the country during much of period. However, towards the second half of the month northeasterly winds were occasionally observed over some parts of Lake Victoria Basin and northeastern highlands, which resulted in enhanced showers and thunderstorms over some parts of Kilimanjaro, Mwanza, Mara, and Manyara regions, causing floods which led to loss of life, property and damage of infrastructure.

RAINFALL SUMMARY

During the month of November 2011, wide spread rains prevailed over most parts of Lake Victoria basin, western regions particularly Kigoma (north) and parts of northern coast where normal to above normal rainfall was obtained.

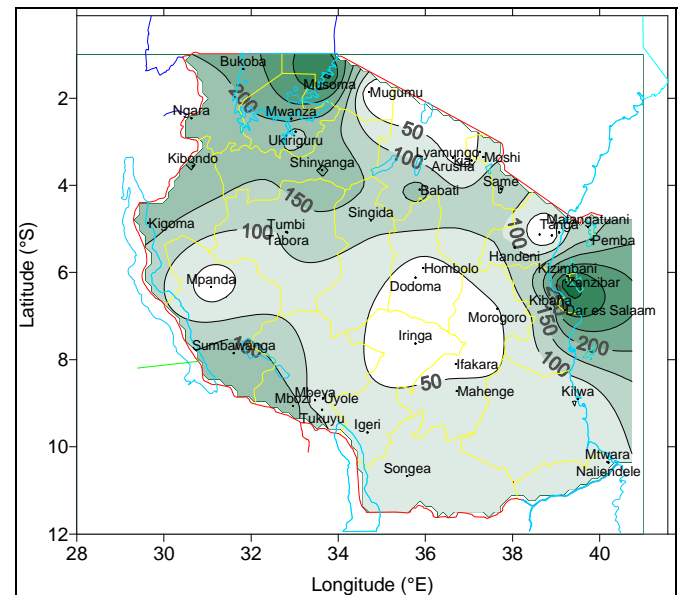


Figure 1A: November 2011 Rainfall distribution

The highest rainfall amount reported during the month was at Zanzibar 393.2 mm, followed by Musoma 362.5 mm, Dar es Salaam 316.5 mm, Kizimbani 315.5 mm, Mwanza 218.9 mm, Bukoba 215.2 mm, Shinyanga 210.6 mm, Kibondo 204.4 mm, Sumbawanga 188.0 mm, Kigoma 175.5 mm, Babati 168.7 mm, Same 159.5 mm, Ngara 155.8 mm, Pemba 148.4mm, Kibaha 139.3 mm, Matangatuani 133.6 mm, Ukiriguru 125.9 mm, Tabora 125.4 mm

and Singida 116.5 mm. The rest of the stations from our sample stations reported rainfall less than 100 mm with a few stations reporting less than 50 mm as shown in Figure 1 below.

MEAN AIR TEMPERATURE

Mean maximum temperatures ranged between 20.9°C and 32.4°C as indicated in Figure 2A. The highest absolute maximum temperature of 33.3 °C was reported at Morogoro during the first dekad of the month. The lowest mean maximum temperature was about 19.6°C over Igeri in the southwestern highlands.

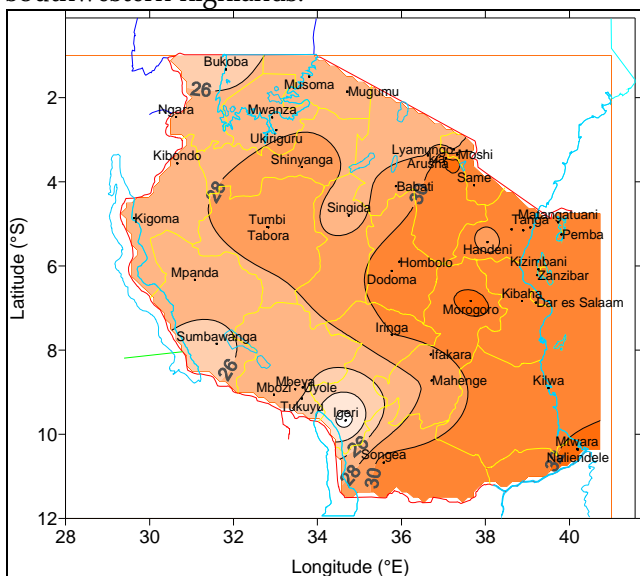


Figure 2A: November 2011 Mean maximum temperature (°C)

MINIMUM TEMPERATURE

During the month under review the country experienced cool temperatures, where the lowest recorded temperatures were experienced over southwestern highlands of the country, notably Igeri, as indicated in Figure 2B. Mean minimum air temperatures ranged from 11.1 °C to 25.3 °C, while the absolute mean minimum temperature value was 10.4 °C at Igeri in the first dekad of the month.

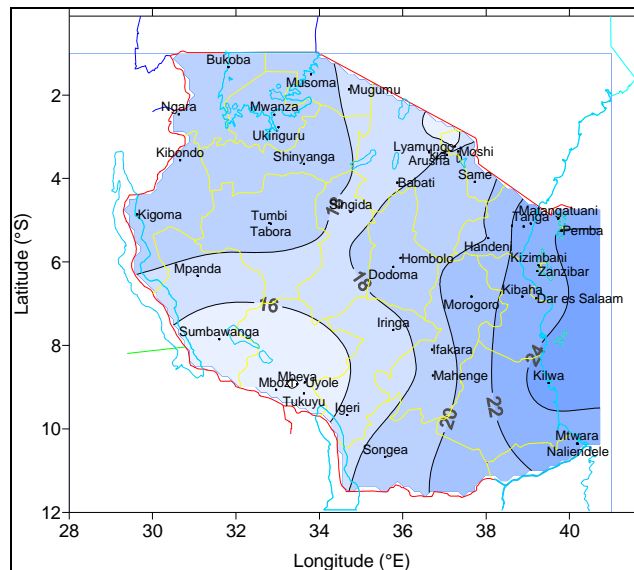


Figure 2B: November 2011 Mean minimum temperature (°C)

MEAN SUNSHINE HOURS

Sunshine durations across the country during November 2011 are indicated by the isolines as mean bright sunshine hours ranging from

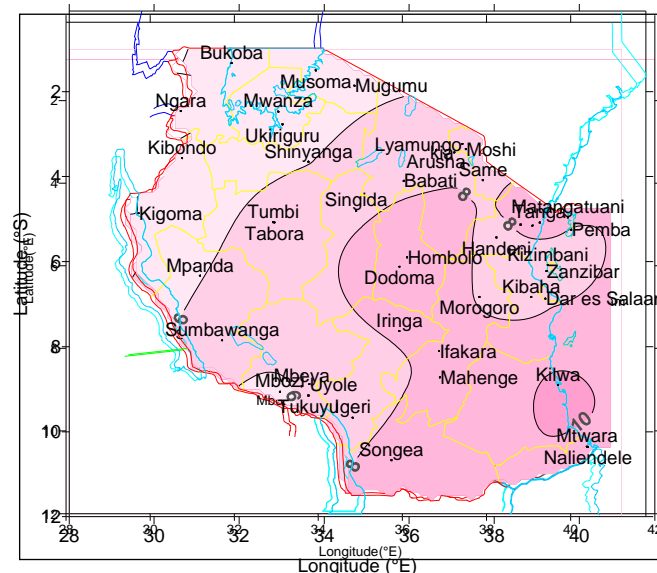


Figure 3: November 2011 Mean Sunshine hours (hrs/day)

about 4 hrs/day over Bukoba which was the lowest while Mtwara and Lindi reported 10 hrs/day as shown in Figure 3 above.

MEAN WIND SPEED

Mean wind speeds across the country ranged between 1 to 12 km/hr during the month of November 2011 as indicated in Figure 4. More windy conditions were recorded over central areas; Dodoma and Hombolo. The lowest wind speed was experienced over Kibaha in the eastern part of the country.

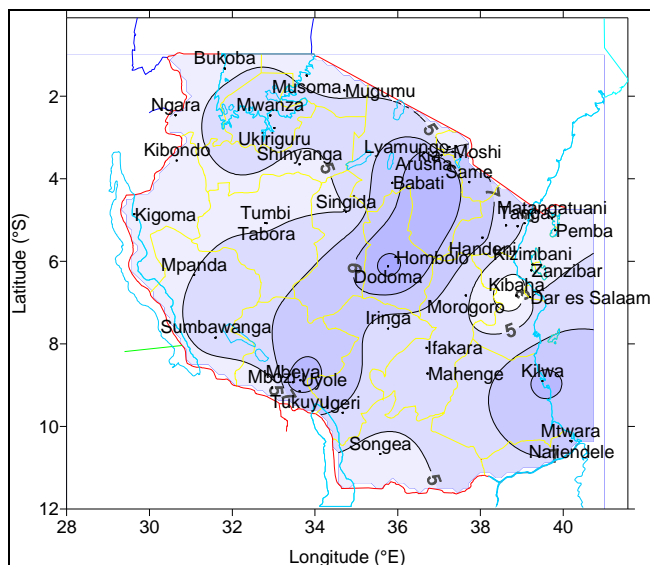


Figure 4: November 2011 Mean Wind speed (km/hr)

AGROMETEOROLOGICAL SUMMARY

Adequate soil moisture supply was experienced over most parts of the country mainly over bimodal sector (Lake Victoria basin, western parts and northern coast) signifying the peak of short rains season with most crops at mid vegetative phase and in good state. In the unimodal sector, land preparations and planting were the major field activities during the month. The earliest planted beans crop entered flowering stage as observed over Lake Victoria basin specially Kagera region. However, several areas in Kilimanjaro, Arusha, Manyara and Tanga regions did not have adequate supply of soil moisture which adversely affected crop growth over those areas. Field activities mainly land preparations and planting were carried out over the

unimodal sector (south, southwestern highlands, southeastern coast, western and central) during the period.

Pastures and water availability for livestock and wildlife were slowly reviving mainly over the greater part of bimodal sector except for parts of unimodal sector (northeastern highlands, central and southwestern highlands) that experienced low rainfall levels during the month.

HYDROMETEOROLOGICAL SUMMARY

Water levels in lakes, dams and discharges in river flows including their respective catchments were hardly boosted. Water for industrial and domestic purposes should be used sparingly

ENVIRONMENTAL SUMMARY

Temperatures over most areas in the country were fairly warm except along the coastal belt and a few inland areas where they were getting hotter. Low relative humidity dominated over most areas but was getting higher along the coastal belt.

EXPECTED SYNOPTIC SITUATION DURING DECEMBER 2011

For the month of December 2011, the Azores and Siberian anticyclones, and the Arabian ridge are expected to intensify. St. Helena anticyclone is expected to strengthen slightly thus pushing the meridional component of the ITCZ towards the western part of the country. The Mascarene high is expected to relax slightly. The above configuration is expected to result in a penetration of westerly winds over the western sector of the country. On the other hand, northeasterly winds are expected to dominate over eastern parts of the country thus enhancing the convergence of low level winds, mostly over the central towards southwestern part of the country during the most part of the month. Furthermore the configuration is expected to enhance the southward movement of ITCZ, and moisture, thus triggering off onset of rainfall activities over unimodal areas. Below average SSTs are expected over central-

eastern equatorial Pacific Ocean. Neutral to slight warm SSTs conditions are expected to prevail over central Indian Ocean, while warmer conditions are expected over southwestern Indian Ocean. The above configuration is expected to enhance penetration of easterlies towards the eastern part of the country.

EXPECTED WEATHER SITUATION DURING DECEMBER 2011

Lake Victoria Basin (Kagera, Mwanza, Mara and Shinyanga regions) is likely to feature isolated to scattered rains and thunderstorms throughout the month. Western regions (Kigoma, Rukwa and Tabora regions): These areas are expected to experience moderate rains and thunderstorms throughout the month. Northern coast (Dar es Salaam, Morogoro and Tanga regions, the Isles of Unguja and Pemba): The areas are expected to experience moderate rain showers with cases of enhancement of rain showers and isolated thunderstorms during the month.

Central areas (Dodoma and Singida regions) are experienced to feature moderate rains and thunderstorms during the most part of the month with high chance of enhancement of the activities during the month. Northeastern highlands (Kilimanjaro, Arusha and Manyara regions) are expected to feature some rain showers. There is a likelihood of reduction of rainfall during the first part of the month. Southwestern highlands (Southern Rukwa, Iringa and Mbeya region): These areas are expected to feature moderate rains and thunderstorms with high chances of enhancement of activities during most of the month. Southern Coast (Mtwara and Lindi regions): These areas are expected to feature moderate rains and thunderstorms.

Southern region (Ruvuma region) is expected to feature isolated cases of rains and thunderstorms.

Prepared by

TANZANIA METEOROLOGICAL AGENCY

3rd, 4th & 10th Floors - Ubungo Plaza – Morogoro Road.

P.O. Box 3056 Tel. 255 -(0) 22 – 2460706-8 ; Fax: 255 - (0) 22 – 2460718 E-mail: (1) met@meteo.go.tz (2) agromet1_tz@meteo.go.tz

Dar es Salaam UNITED REPUBLIC OF TANZANIA