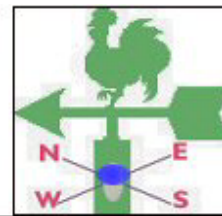




TANZANIA METEOROLOGICAL AGENCY



MONTHLY WEATHER BULLETIN

ISSN No: 0856-0919, Volume 12 Issue No 10

October 2011

HIGHLIGHTS

- Adequate soil moisture supply was experienced over several parts of the country at the beginning of the month.
- Early planted crops over Lake Victoria basin particularly Kagera region mainly beans were reported in flowering phase and in good state while over unimodal sector land preparations continued.

SYNOPTIC SITUATION

During the month of October 2011, southern hemisphere high pressure cells, St Helena and Mascarin anticyclones intensified during the second half of the month. The Siberian high and the Arabian ridge in the northern hemisphere were intense during the first half of the month and remained relaxed in the other half. This resulted in gradual pushing and retreating northward of the zonal arm of the rain-making mechanism i.e. Inter-Tropical Convergence Zone (ITCZ). Cool Sea Surface conditions have been established over the Equatorial central-eastern Pacific, while neutral to cool SSTs were observed over eastern Indian Ocean (areas around Indonesia). Slight Warm Sea Surface Temperatures prevailed over the central equatorial Indian Ocean during the month of October 2011. Easterly to southeasterly low level winds prevailed over eastern parts of the country during much of the period. However, towards the second half of the month northeasterly winds were occasionally observed over some parts of Lake Victoria basin and northeastern highlands, resulting in enhanced thundershowers over some parts of Kagera, Mwanza which caused some property damage over some areas. Slight reductions of activities were observed during the second half of the month due to convergence of the low level winds over the Somali coast which led to divergence over our country.

During the month of October 2011, wet conditions were observed mainly over parts of Lake Victoria basin, western regions especially over Kigoma (north) and northern coast whereby normal to above normal rainfall was recorded. The highest total rainfall reported during the month was 327.6 mm at Tanga Met. station, followed by Pemba 255.0 mm, Bukoba 254.9 mm, Zanzibar 215.8 mm, Mlingano, 204.0 mm, Kibondo 150.9 mm, Lyamungo 142.4 mm, and Shinyanga 119.3 mm. The rest of the stations from our sample stations reported less than 40 mm for the period, as shown in Figure 1 below.

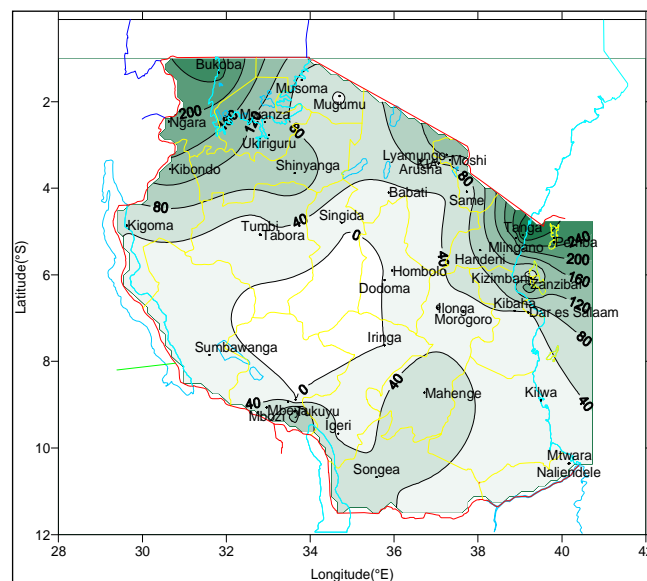


Fig 1: October 2011 Rainfall Distribution in mm.

MEAN AIR TEMPERATURE

Mean maximum temperatures ranged between 20.6 °C and 32.1°C as indicated in Figure 2A. The highest absolute maximum temperature of 33.9 °C was reported at Morogoro during the third dekad of the month.

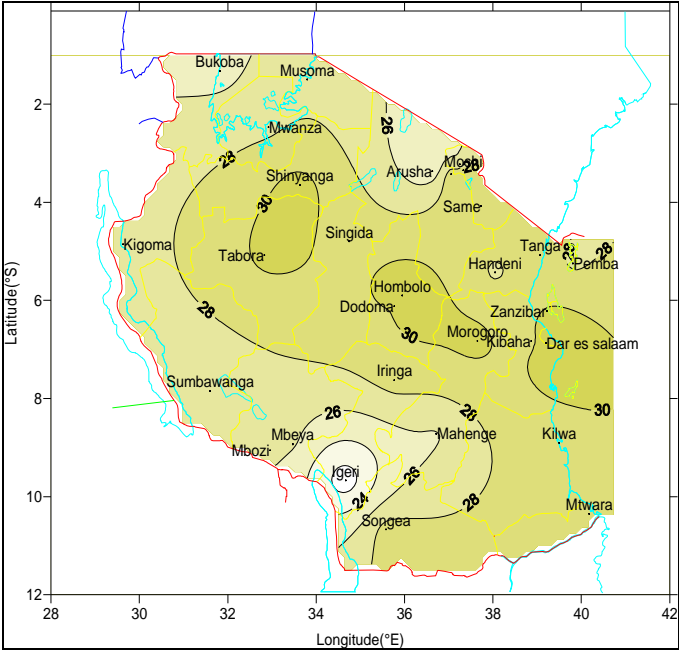


Fig 2A: October 2011 Mean Maximum Temperature (°C)

The lowest mean maximum temperature was 20.6 °C at Igeri in the southwestern highlands.

MINIMUM TEMPERATURE

During the month under review the country experienced cool to cold temperatures where cold temperatures were experienced over areas in the southwestern highlands of the country as indicated in Figure 2B. Mean minimum air temperatures ranged from 9 °C to 22°C, while the absolute mean minimum temperature value was 9.1 °C at Igeri in the second dekad of the month.

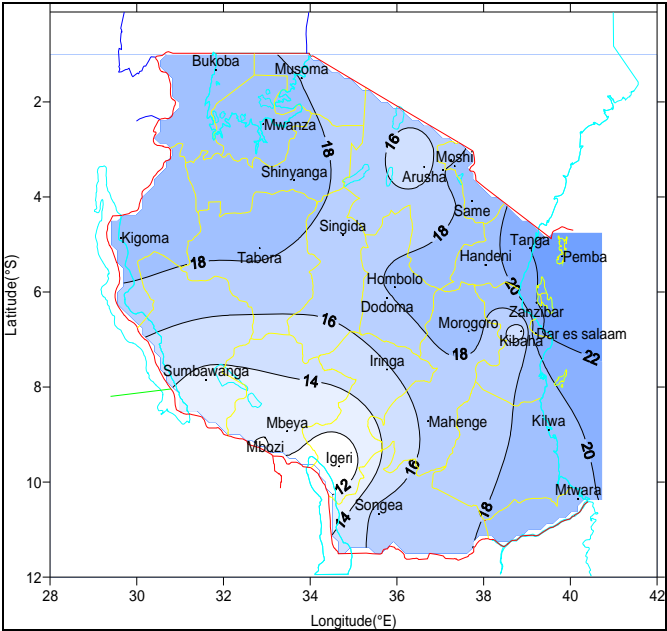


Fig 2B: October 2011 Mean Minimum Temperature (°C)

MEAN SUNSHINE HOURS

Sunshine duration across the country during the month indicates that the mean bright sunshine hours ranged from about 5 hrs/day over western Lake Victoria basin and northeastern highlands to 10 hrs/day over coast, central and southwestern highlands as shown in Figure 3 above.

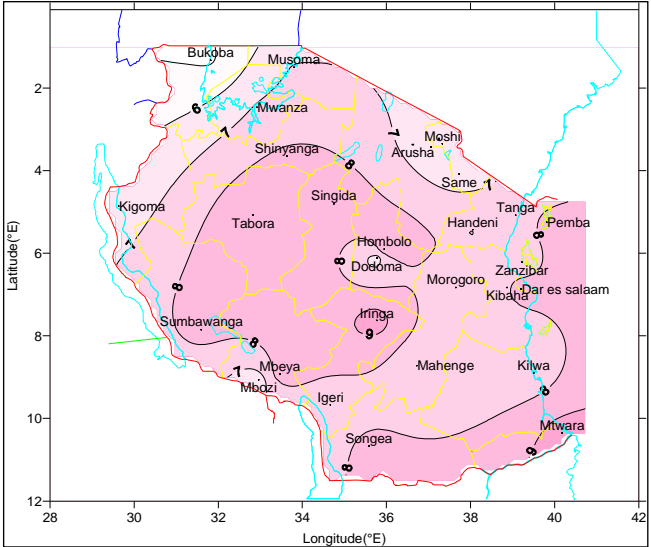


Fig .3: October 2011 Mean Sunshine Hours (hrs/day)

MEAN WIND SPEED

Mean wind speeds across the country ranged between 2 to 14 km/hr during the month of October 2011 as indicated in Figure 4. More windy conditions were recorded in southwestern highlands and central region (Mbeya, Morogoro Dodoma, Hombolo) while slight windy conditions were experienced over Lyamungo and Kibaha.

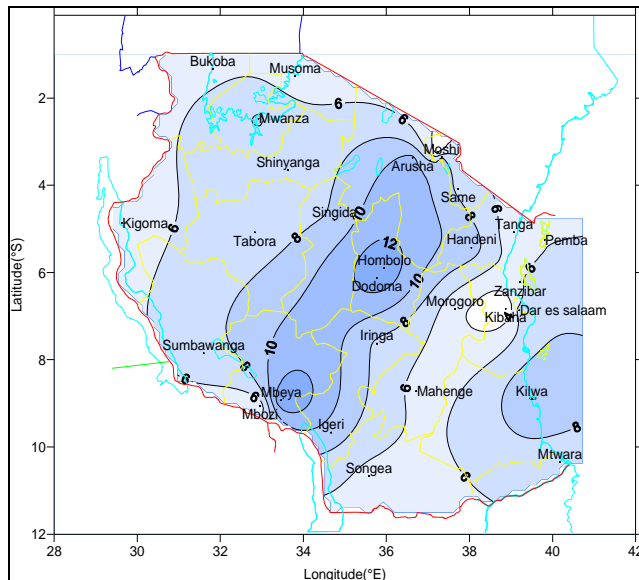


Fig. 4: October 2011 Mean wind speed (km/hr)

AGROMETEOROLOGICAL SUMMARY

Adequate soil moisture supply was experienced over several parts of the country mainly during the beginning of the month with higher levels registered over Lake Victoria basin, western parts and northern coast suggesting favourable conditions for field activities mainly land preparation and planting. The earliest planted crops had got to flowering stage as for beans in parts of Lake Victoria basin especially Kagera region, although most areas in this sector; Mara, Kilimanjaro and Arusha regions, had poor supply of soil moisture towards the end of the month, depriving younger growing crops in the fields. However, the lack of soil moisture supply for most of unimodal sector (south, southwestern highlands, southeastern coast, western and central) was rather favorable for field activities mainly land preparation and early planting that continued so widely over the sector.

Pastures and water availability for livestock and wildlife were reviving mainly over the greater part of bimodal sector except over northeastern highlands and parts of unimodal sector (central and southwestern highlands) that experienced lowest levels for 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 cool except along the coastal belt and a few inland areas where they are getting hotter. Low relative humidity dominated over most areas but is getting higher along the coastal belt.

EXPECTED SYNOPTIC SITUATION DURING NOVEMBER 2011

During the month of November 2011, the Azores high and Siberian high together with the associated Arabian ridge are expected to intensify. St. Helena high is expected to become slightly strong thus allowing westerlies to penetrate over western parts of the country. On the other hand Mascarine high is expected to relax slightly. The above configuration is expected to result into a tight gradient over the eastern sector of the country and low level easterly wind convergence. Weak near Equatorial trough is expected over the northern coast. Below average SSTs are expected over central-eastern equatorial Pacific Ocean. Neutral SSTs conditions are expected to prevail over central Indian Ocean, while slightly warmer conditions are expected over southwestern Indian Ocean. Low level winds convergence are expected to dominate over the Lake Victoria basin and reaching western regions. The above configuration is expected to enhance the southward movement of ITCZ and moisture thus contributing to spreading of rainfall activities over bimodal areas. Moreover there is

increased chance for above average precipitation over Lake Victoria Basin, Northeastern highlands and Northern Coast.

**EXPECTED WEATHER SITUATION
DURING NOVEMBER 2011**

Lake Victoria Basin (Kagera, Mwanza, Mara and Shinyanga regions) is likely to feature cloudy to partly cloudy conditions and thundery showers over most areas. **Western regions** (Kigoma, Rukwa and Tabora regions): These areas are expected to experience enhanced thundery showers. **Northern coast** (Dar es Salaam, Morogoro and Tanga regions, the Islands of Unguja and Pemba): The areas are expected to experience enhanced rain showers with cases of thundery showers.

Central areas (Dodoma and Singida regions): Rain showers are expected during this month. **Northeastern highlands** (Kilimanjaro, Arusha and Manyara regions) are expected to feature some showers. Occasionally enhanced thundery showers may occur. **Southwestern highlands** (Southern Rukwa, Iringa and Mbeya region): Mainly dry conditions with occasional light rain showers over the high grounds areas. **Southern Coast** (Mtwara and Lindi regions): Partly cloudy conditions, isolated cases of rains are expected during the month. **Southern region** (Ruvuma region): Mainly normal dry conditions with occasional light rain showers are expected.

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