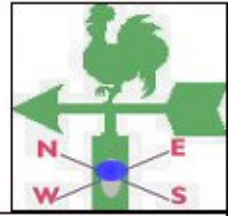




TANZANIA METEOROLOGICAL AGENCY



MONTHLY WEATHER BULLETIN

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HIGHLIGHTS

- *Replenished soil moisture supply was experienced during the month, enhancing most crops at flowering to ripeness stages as over seasonally cropping areas of unimodal sector.*
- *Planting and weeding were the major field activities carried out for the period over bimodal sector.*

SYNOPTIC SITUATION

During the month of March 2012, southern hemisphere high pressure cells, and St Helena and Mascarene anticyclones were relatively strong while Siberian high and the associated Arabian were relatively intense. This maintained the rain-making mechanism i.e. Inter-Tropical Convergence Zone (ITCZ) in the southern part of the country. Cool Sea Surface Temperature (SSTs) conditions have been established over the Equatorial central-eastern Pacific, while slight warm SSTs were observed over eastern Indian Ocean (areas around Indonesia) and the central equatorial Indian Ocean. Northeasterly to northwesterly low level winds prevailed over eastern parts of the country during much of the period. Westerly winds were also observed during the month contributing to convergence over the southern part of the country which led to enhanced activities over the southwestern highlands, west, central, southern regions and southern coast.

WEATHER SUMMARY

RAINFALL

During March 2012 most parts of the country received below normal rainfall with few areas mainly in the southern unimodal sector having received above normal values. Naliendele had the

highest total amount for the month, 258.5mm, followed by Igeri 192.6mm, Kilwa Masoko 175.1mm, Mahenge 173.4 mm, Songea 172.2 mm, Bukoba 170.7mm, Mtwara 165.8 mm, Kibondo 151.6 mm, Zanzibar 150.5 mm, Mpanda 143.4 mm, Tukuyu 138.3 mm, Mbozi 137.4 mm, Uyole 121.0 mm, Kibaha 125 mm, Dodoma 120.9 mm, Morogoro 109.1 mm, and Kigoma 100.4 mm. Remaining stations had below 100 mm, with a few mainly those located over bimodal sector at below 50 mm, including Dar es Salaam Airport 49.9 mm, Babati 36.5 mm, Mwanza 36.4mm, Ukiriguru 36.0mm, Kilimanjaro Airport 33.4mm, Tanga 28.2 mm, Moshi 21.2 mm and Arusha 18.6 mm.

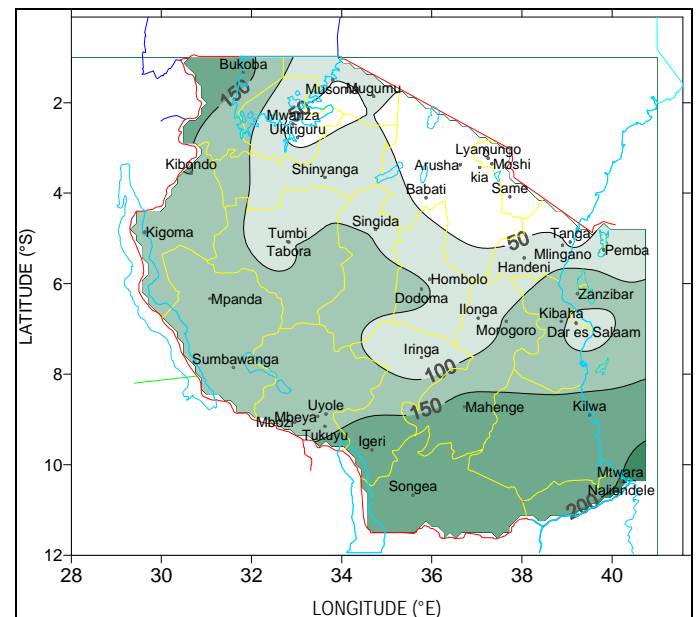


Figure 1: March 2012 Rainfall distribution in (mm)

MEAN AIR TEMPERATURE

Mean maximum temperatures ranged between 22°C and 34°C as indicated in Figure 2A. The highest absolute maximum temperature of 34.4°C was reported at KIA during the second dekad of the month. The lowest mean maximum temperature was about 20.1°C obtained in the first dekad over Igeri in the southwestern highlands.

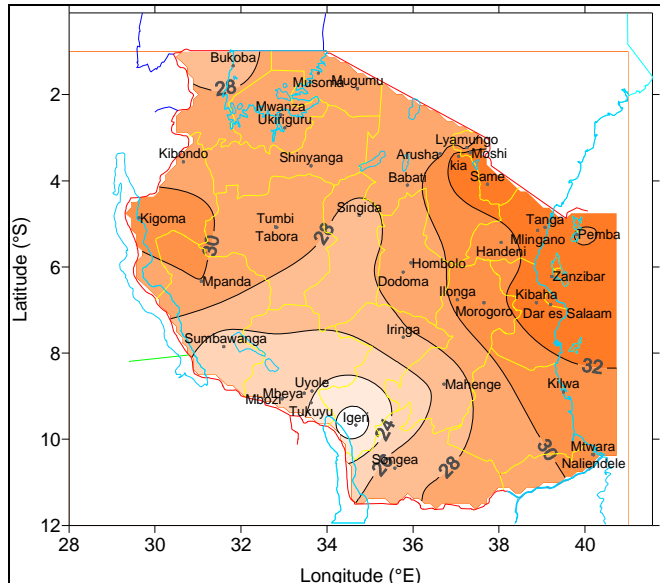


Figure 2A: March 2012 Mean maximum temperature (°C)

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.

MINIMUM TEMPERATURE

Mean minimum air temperatures ranged from 12°C to 24°C whereby the absolute mean minimum temperature value was 11.5°C recorded at Igeri in the southwestern highlands during the third dekad of the month.

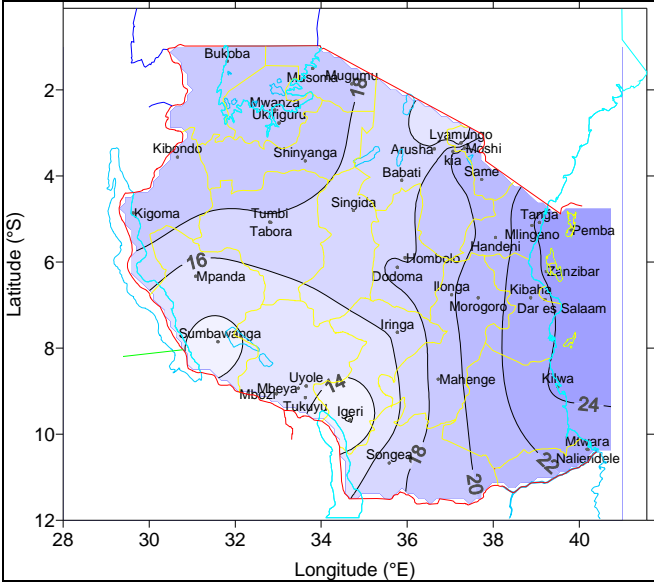


Figure 2B: March 2012 Mean minimum temperature (°C)

MEAN SUNSHINE HOURS

Sunshine durations across the country during March 2012 ranged from about 4 hrs per day as the observed shortest duration over Igeri area Njombe region to about 10 hrs per day recorded over Tanga region depicted in Figure 3 above.

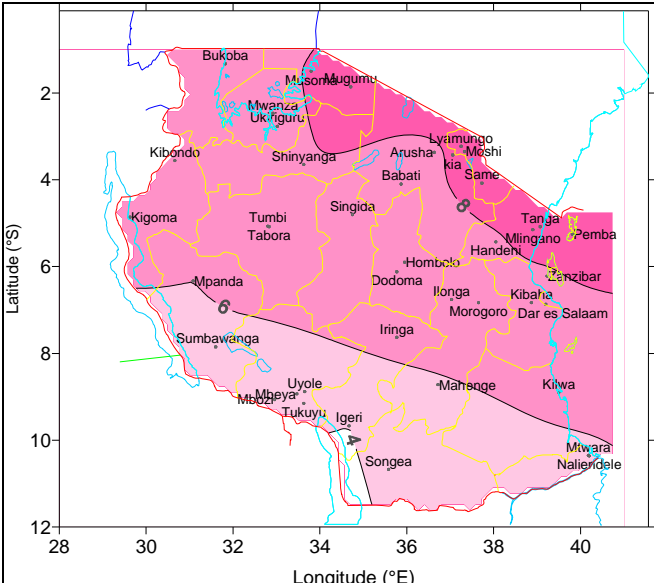


Figure 3: March 2012 Mean Sunshine hours (hrs/day)

MEAN WIND SPEED

Mean wind speed across the country ranged between 1 to 10 km/hr during the month of March 2012, as indicated in Figure 4 below. Windy conditions during the period were recorded over parts of northeastern highlands particularly over Same in Kilimanjaro region and as in Figure 4 below.

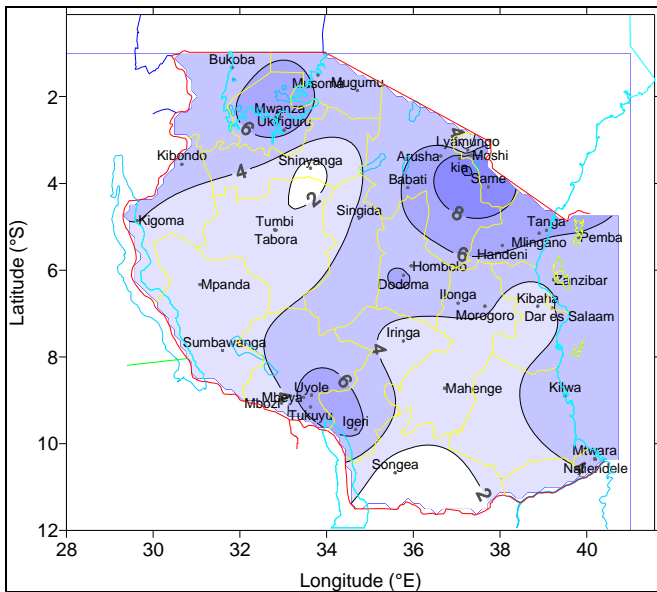


Figure 4: March 2012 Mean Wind speed (km/hr)

AGROMETEOROLOGICAL SUMMARY

Replenished soil moisture supply was experienced during the month enhancing most crops at flowering to ripeness stages over the seasonally cropping areas of in the unimodal sector. Over the bimodal sector finalizing planting and weeding were the major field activities carried out for the period following delayed onset of *Masika* rains. However, for the unimodal sector most crops like maize, beans and paddy were progressing well at stages ranging from flowering to ripeness and in moderate to good state. Ripeness of crops mainly maize was reported over lower grounds of the southwestern highlands while the higher grounds reported flowering at most. Beans crop was in the second planting phase that normally begins during the late period of the season as the crop mainly favors moderate soil moisture

levels. Wheat crop was reported at vegetative stage and in good state, while paddy and sorghum were progressing well at tasselling to wax ripeness stage. Cotton crop, over the Lake Victoria basin, was doing well at flowering stage.

Pastures and water availability were generally adequate over much of the country.

AGROMETEOROLOGICAL OUTLOOK

During the Month of April, soil moisture is expected to increase over some areas in the bimodal sector benefiting crops mostly at emergence to vegetative stages. In the unimodal areas, increased soil moisture will benefit late grown crops and may cause damage to crops at harvesting maturity.

HYDROMETEOROLOGICAL SUMMARY

Water levels in lakes, dams and discharges in river flows including their respective catchments were boosted.

ENVIRONMENTAL SUMMARY

Temperatures over most areas in the country were increasing. Low relative humidity dominated over most areas, but was getting higher all along the coastal belt.

EXPECTED SYNOPTIC SITUATION DURING APRIL 2012

For the month of April 2012, the Azores High, the Siberian High and the associated Arabian ridge are expected to slightly relax. The Mascarene and St Helena high pressure systems are expected to gradually becoming strong thus slightly set off a northward movement of the rain making

mechanisms (ITCZ). Below average Sea Surface Temperatures (SSTs) are expected over central-eastern equatorial Pacific Ocean. Neutral to slightly warm SSTs conditions are expected to prevail over the great part of the Indian Ocean, including southwestern Indian Ocean. Easterly to Southeasterly low level winds are expected to converge with weak westerly winds mainly over the northern sector of the country.

**EXPECTED RAINFALL SITUATION
DURING APRIL 2012**

During April mainly normal rainfall conditions are expected over the most parts of the country: Lake Victoria Basin (Kagera, Mwanza, Mara and Shinyanga regions): These areas are expected to feature normal rains.

Western regions (Kigoma, Rukwa and Tabora regions): These areas are expected to experience normal rains. Northern coast (Dar es Salaam, Morogoro and Tanga regions, the Isles of Unguja and Pemba): The areas are expected to experience normal rains. Central areas (Dodoma and Singida regions): These areas are expected to feature normal rains. Northeastern highlands (Kilimanjaro, Arusha and Manyara regions): These areas are expected to feature normal rains. Southwestern highlands (Southern Rukwa, Iringa and Mbeya region): These areas are expected to feature normal rains. Southern Coast (Mtwara and Lindi regions): These areas are expected to feature normal rains. Southern region (Ruvuma region): These areas are expected to feature normal rains

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