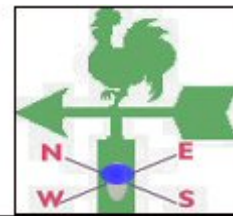




# TANZANIA METEOROLOGICAL AGENCY



## MONTHLY WEATHER BULLETIN

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### HIGHLIGHTS

- Soil moisture supply experienced during the month was moderately favorable for crop growth and development over bimodal sector, while for the unimodal sector seasonal dry condition favored the harvesting activities.

### SYNOPTIC SITUATION

During the month of May, 2012 southern hemisphere high pressure cells; St Helena and Mascarene anticyclones continued to intensify. Northern hemisphere high pressure cells; Siberian high and the associated Arabian ridge relaxed. This assisted, the Inter-Tropical Convergence Zone (ITCZ), continue migrating to the northern hemisphere from its current position. Slight cool Sea Surface Temperatures (SSTs) have been observed over the eastern Indian Ocean while slight warming SSTs were observed over southwestern Indian Ocean in association with upper level ridge that resulted into easterly to southeasterly wind flow over the country. This condition resulted into enhanced rainfall activities over the northeastern highlands, Lake Victoria basin, some areas of the southwestern highlands and along the coastal areas.

### WEATHER SUMMARY

### RAINFALL

Most parts of the country mainly bimodal areas received adequate rainfall with pockets of below normal rains over parts of northeastern highlands notably around Same area. Similarly the unimodal areas particularly Mahenge, Kilwa and Tukuyu stations recorded substantial rainfall amounts for the period. The highest monthly amount was obtained at Bukoba Met. station, 536.2 mm followed by Lyamungu 381.6 mm, Tukuyu 339.0

mm, Pemba 322.2 mm, Amani Marikitanda 242.0 mm, Mwanza 158.2 mm, Mlingano 151.6 mm, Kilwa Masoko 135.6 mm, Morogoro 135.6 mm, Julius Nyerere International Airport (JNIA) 123.8 mm, Zanzibar 121.0 mm, Handeni 119.5 mm, Mugumu 119.1 mm, Musoma 118.5 mm, Tanga 92.4 mm, Mahenge 88.7 mm, Naliendele 61.7 mm, Ukiriguru 58.0 mm, Moshi 55.2 mm, Mtwara 54.2 mm and Kilimanjaro Airport 51.9 mm. Remaining stations mainly those located over unimodal sector were generally dry with few areas reporting the lowest values below 50 mm as depicted in Figure 1 below.

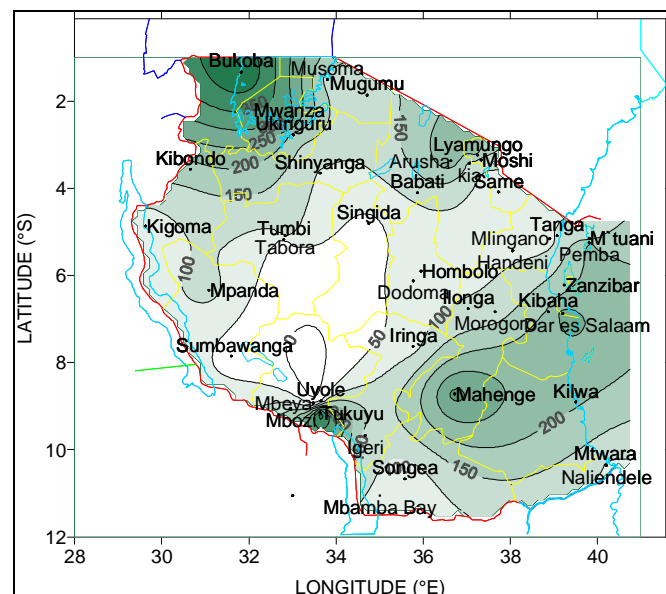


Figure 1: May 2012 Rainfall distribution in (mm)

**MEAN AIR TEMPERATURE**

Mean air temperatures during the month were moderate. The mean maximum temperature ranged between 17°C and 31°C as indicated in Figure 2A below. The highest absolute maximum temperature of 31.7°C was reported at JNIA during the second dekad of the month. The lowest mean maximum temperature of 15.8°C was recorded in the first dekad at Igeri in the southwestern highlands.

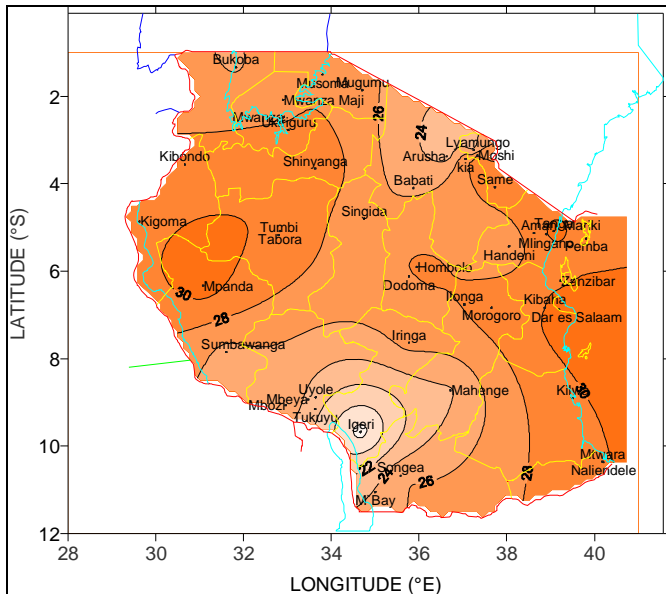


Figure 2A: May 2012 Mean maximum temperature (°C)

Cool temperatures were experienced over the country during the month, where the lowest values recorded were in the southwestern highlands of the country, notably Igeri, as indicated in Figure 2B. The mean minimum air temperatures ranged from 9°C to 24°C, whereby the absolute mean minimum temperature value was 7.3°C recorded at Igeri during the third dekad of the month.

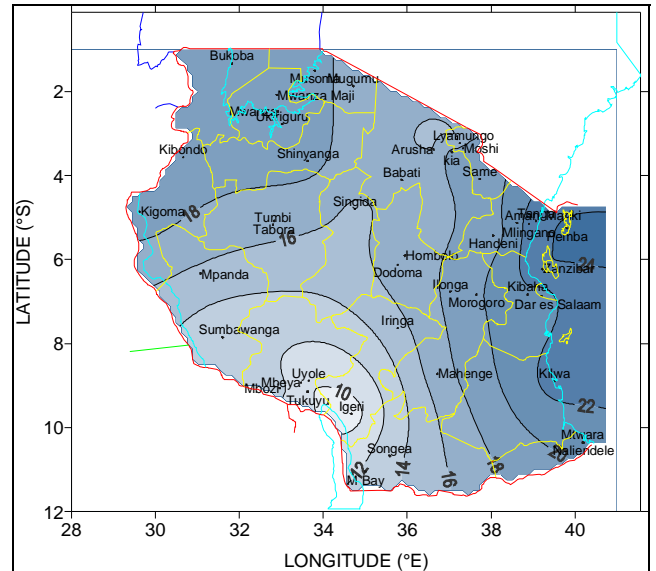


Figure 2B: May 2012 Mean minimum temperature (°C)

**MEAN SUNSHINE HOURS**

Sunshine durations across the country during May 2012 ranged from about 2 hrs per day as the shortest duration observed around Morogoro area to about 9 hrs per day recorded over Tabora region as depicted in Figure 3 above.

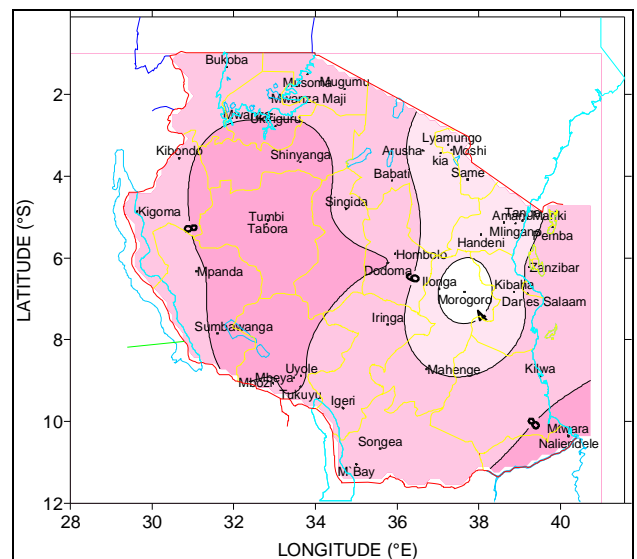


Figure 3: May 2012 Mean Sunshine hours (hrs/day)

**MEAN WIND SPEED**

Mean wind speed across the country during the month of May 2012, ranged from about 1 to 11 km/hr as indicated in Figure 4 below. The highest wind speed during the period was recorded over parts of southwestern highlands particularly Mbeya region, central areas (Dodoma region) and over the Isles particularly Pemba while the Coast region (Kibaha) observed the lowest wind speed as in Figure 4 below.

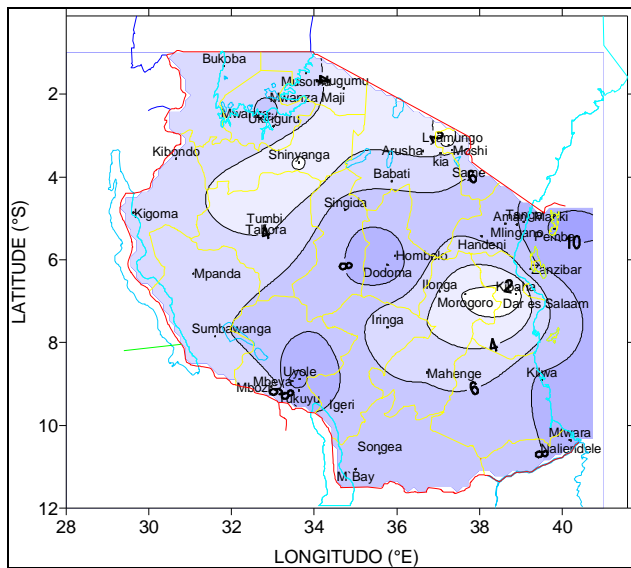


Figure 4: May 2012 Mean wind speed (km/hr)

**AGROMETEOROLOGICAL SUMMARY**

Soil moisture supply experienced during the month was moderately favorable for crops most of which were approaching wax to full ripeness, while over the unimodal sector the dry condition favored harvesting activities. State of crops generally was moderate to good, thus, harvesting of crops such as maize, beans, paddy and groundnuts continued over southwestern highlands, southern, central and western areas of the country. Wheat crop over high grounds in southwestern highlands was at tasselling stage and in good state, likewise, cotton mainly over bimodal areas particularly Lake Victoria basin was doing well and at flowering stage.

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

**AGROMETEOROLOGICAL OUTLOOK**

Late planted crops mainly over bimodal sector will be affected following the expected decrease of soil moisture over much of the country during the month of June, although the moisture status is favorable for matured crops.

**HYDROMETEOROLOGICAL SUMMARY**

Water levels in lakes, dams and discharges in river flows over several catchments across the country for the period were generally good.

**ENVIRONMENTAL SUMMARY**

Temperatures over most areas in the country were generally moderate with cool to cold conditions reported over high grounds in northeastern and southwestern highlands.

**EXPECTED SYNOPTIC SITUATION DURING JUNE 2012**

For the coming month of June, 2012 the Azores and Siberian high pressure cells and the Arabian ridge are expected to relax. The Mascarene and St Helena high pressure systems are expected to gradually become strong thus enhancing the east Africa ridge over the country. Near normal Sea Surface Temperatures (SSTs) are expected over much of the southwestern Indian Ocean while slightly cool Sea Surface Temperatures are likely to prevail over eastern Indian Ocean. This configuration is bound to favor southerly to southeasterly low level wind flow over most parts of the country.

**EXPECTED RAINFALL SITUATION  
DURING JUNE 2012**

**D**uring the of June, mainly normal rainfall patterns and cool conditions are expected over the most part of the country. The Lake Victoria Basin (Kagera, Mwanza, Mara and Shinyanga regions), northern coast (Dar es Salaam, Morogoro, Coast, and Tanga regions, the isles of Unguja and Pemba), and northeastern highlands (Kilimanjaro, Arusha and Manyara regions) are expected to feature normal to below normal rains.

The rest of the country; western regions (Kigoma, Rukwa and Tabora regions), central areas (Dodoma and Singida regions), southwestern highlands (Southern Rukwa, Iringa and Mbeya region), southern coast, and southern regions are expected to feature mainly dry conditions.

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