# MONTHLY WEATHER BULLETIN

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#### HIGHLIGHTS

- Seasonal dry and cool conditions during the month of July were favorable mainly over the bimodal sector for finalizing crop harvesting, proper storage and the market access.
- Cooler conditions are expected to persist over much of the country during the month of August, 2013.

#### SYNOPTIC SITUATION

During the month of July the southern hemisphere high pressure systems continued to intensify while the northern hemisphere high pressure systems simultaneously continued to relax. As a result, the Inter Tropical Convergence Zone (ITCZ) was pushed further north of the country, staying generally north of Somalia, and its influence over the country was largely diminished. As for Sea Surface Temperatures (SSTs), neutral condition to moderate cooling of the western Indian Ocean and the eastern Atlantic Ocean was observed, while slight warming eastern Indian Ocean was observed. This configuration resulted into slightly moist westerly and easterly to south-easterly wind flow over the country, causing slight to moderate precipitation over the Lake Victoria basin and eastern sector of the country (particularly extreme northern coast and north eastern highlands).

#### WEATHER SUMMARY

#### RAINFALL

During the period, some of the bimodal areas of the country, particularly along the extreme northern coast, north eastern highlands and Lake Victoria basin, had periods of light rainfalls. Much of unimodal areas featured mainly dry conditions. The highest amount of rainfall during the month was

recorded at Bukoba meteorological station (90.0 mm), followed by Tukuyu (88.0mm), Lyamungo (26.9mm), Tanga (20.4 mm), Mahenge (12.3mm) and Pemba (10.5 mm). The remaining areas received rainfall below 10 mm.

#### MEAN AIR TEMPERATURE

ean maximum temperature during the month ranged between 17.7°C and 30.7°C as indicated in Figure 1a below. The highest absolute maximum temperature of 30.9°C was observed at Julius Nyerere International airport during the third dekad of the month. The lowest absolute maximum temperature was 17.7°C observed during the first dekad of the month over Igeri in the southwestern highlands. Temperatures were relatively low over almost the whole country during the month, as indicated in figures 1a and 1b.

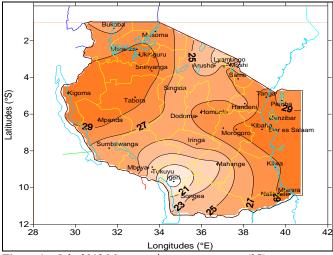


Figure 1a: July 2013 Mean maximum temperature (°C)

The mean minimum air temperatures ranged from 4.8 °C to 23.4 °C, whereby the highest absolute minimum was 24.1 °C recorded at Pemba during the second dekad, while the lowest absolute minimum temperature was 4.3 °C recorded at Mbeya during the second dekad of the month of July 2013.

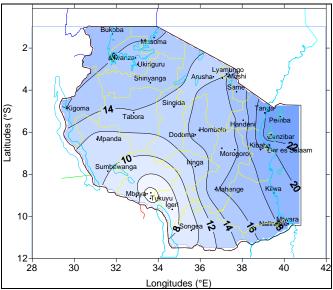


Figure 1b: July 2013Mean minimum temperature (°C)

### MEAN SUNSHINE HOURS

Sunshine durations across the country during the month of July 2013 ranged from about 6 hours per day as the shortest duration observed at KIA in Kilimanjaro region to about 11 hours per day as recorded over Dodoma and Hombolo in the central region and Sumbawanga in southwest highlands as shown in Figure 2 below.

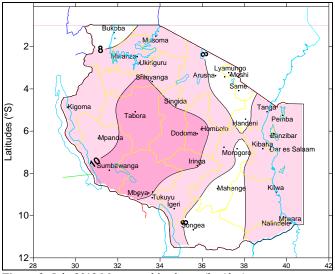


Figure 2: July 2013 Mean sunshine hours (hrs/day)

#### MEAN WIND SPEED

ean wind speed during the month of July 2013, ranged from 1 to 12 km/hr across the country. The highest wind speed was 12.7km/hr recorded over Mbeya in the third dekad, while the lowest wind speed value was 1.0 km/hr recorded over Kibaha during the first dekad of the month, as depicted by figure 3.

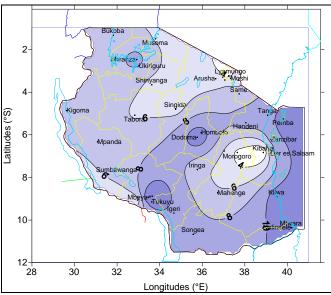


Figure 3: July 2013 Mean wind speed (km/hr)

#### AGROMETEOROLOGICAL SUMMARY

During the month of July, both unimodal and bimodal sectors experienced seasonal dry conditions. The episode was favorable largely over the bimodal areas including Mwanza, Tanga, Kilimanjaro and Kagera where dorminant activities were finalizing in harvesting, storage and market access for crops like cotton, paddy and maize. These crops were observed to be in moderate condition. Other crops like coffee and sweet potatoes were at full ripeness, with ongoing harvesting activities. However, low harvests are expected over parts of bimodal sector especially in low lying areas of Same and Musoma where late planted *Masika* crops were negatively impacted by the observed dry condition and were in poor condition. The unimodal sector remained seasonally dry during the month.

Pastures and water availability for livestock and wildlife over much of the country was generally good.

#### HYDROMETEOROLOGICAL SUMMARY

Water levels in lakes, dams and river flow discharges including their respective catchments decreased slightly during the month of July.

#### **ENVIRONMENTAL SUMMARY**

Temperatures over much of the country were relatively low due to cold conditions which prevailed during the month of July.

## EXPECTED SYNOPTIC SITUATION DURING AUGUST 2013

During the month of August 2013, the southern hemisphere high pressure systems are expected to continue to intensify while the northern hemisphere high pressure systems are expected to continue to relax. A strong East African ridge is expected to continue to dominate the hinterlands of the country. Meanwhile, the Inter Tropical Convergence Zone (ITCZ) is expected to be pushed slowly further north, staying far north of Somalia, and its influence over the country become negligible. Cool Sea Surface Temperatures (SSTs) currently observed over the north and south western Indian Ocean is expected keep dry southerly to south-easterly flow over the country associated with cold conditions. Also, as cool SSTs currently observed over the eastern Atlantic Ocean is expected to foster the penetration of these moist westerly towards the western parts of the country.

## EXPECTED WEATHER DURING AUGUST 2013

The forecasted distribution of rainfall over the country during the period is as follows: Lake Victoria basin (Kagera, Geita, Mwanza, Mara, Simiyu and Shinyanga regions) is expected to feature mainly dry and cool conditions with occasional thundershowers. The northern coast (Dar es Salaam, Morogoro and Tanga regions, the Isles of Zanzibar and Pemba) is expected to feature mainly dry and cool conditions with occasional light rains. North-eastern highlands (Kilimanjaro, Arusha and Manyara regions) are expected to feature mainly dry and cooler conditions with occasional light rains over higher grounds. Western regions (Kigoma, Rukwa and Tabora regions) are expected to feature mainly dry and cool conditions. Central areas (Dodoma and Singida regions), south-western highlands (Southern Rukwa, Katavi, Njombe, Iringa and Mbeya region), southern coast (Mtwara and Lindi regions) and southern region (Ruvuma region) are expected to feature mainly dry and cooler conditions.

# AGROMETEOROLOGICAL OUTLOOK DURING AUGUST, 2013

The expected seasonal dry and cool conditions in August, 2013 will be useful for final crop harvesting, storage and marketing.

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