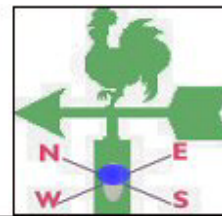




# TANZANIA METEOROLOGICAL AGENCY



## MONTHLY WEATHER BULLETIN

ISSN No: 0856-0919, Volume 13 Issue 7

July 2011

### HIGHLIGHTS

Soil moisture deficits dominated over much of the country resulting into further decline of pastures and water availability for livestock and wildlife.

### SYNOPTIC SUMMARY

During the month of July 2011, southern hemisphere systems, the Mascarene and St. Helena anticyclones continued to intensify while the Siberian anticyclone and the Arabian ridge in the northern hemisphere continued to relax thus maintaining the zonal arm of the rain-making mechanism (Inter-Tropical Convergence Zone - ITCZ) in north of Africa. Neutral sea surface conditions have been established over the Equatorial Pacific. Near neutral Sea Surface Temperatures (SSTs) prevailed over the southwestern Indian Ocean during the month of July 2011. Easterly waves which occurred towards the end of the month resulted in temporary wet conditions over our coastal areas.

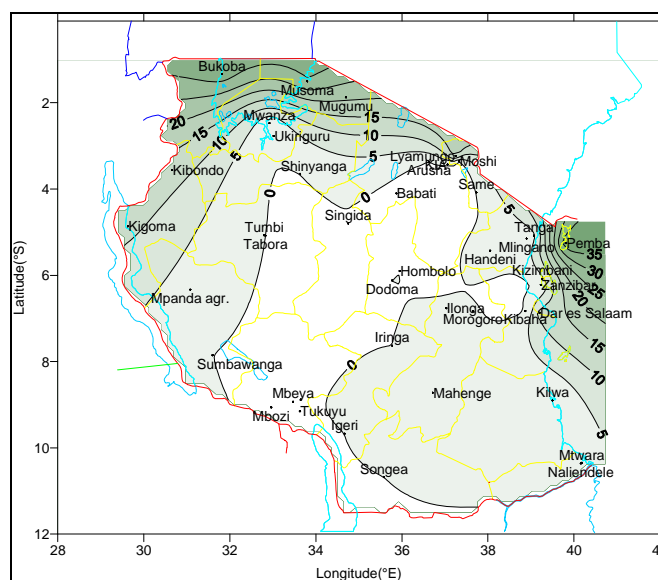


Figure 1: July 2011 Rainfall Distribution (mm)

### WEATHER SUMMARY

#### RAINFALL

During the month under review, much of the country was seasonally dry except over Lake Victoria basin and northern coast whereby some rainfall of above 30 mm was received. The highest rainfall reported during the month was 39.0 mm over Pemba Island, followed by Bukoba 33.0 mm, Musoma 29.5 mm, Lyamungo 17.6 mm, Dar es Salaam International Airport 11.9 mm, Kigoma 11.4 mm, Mahenge 5.0 mm, and Handeni 3.3 mm.

#### MEAN AIR TEMPERATURE

During the month under review the country experienced cool to cold temperatures as reported over southwestern highlands of the country. Mean maximum temperatures ranged between 16 °C and 31°C as indicated in Figure 2A. The highest absolute maximum temperature of 31.1 °C was reported at Shinyanga during the third dekad of the month. The lowest mean maximum temperature was about 16.7 °C over Igeri in the northwestern highlands. On the other hand, mean minimum air temperatures ranged from 8 °C to 22 °C as shown in Figure 2B.

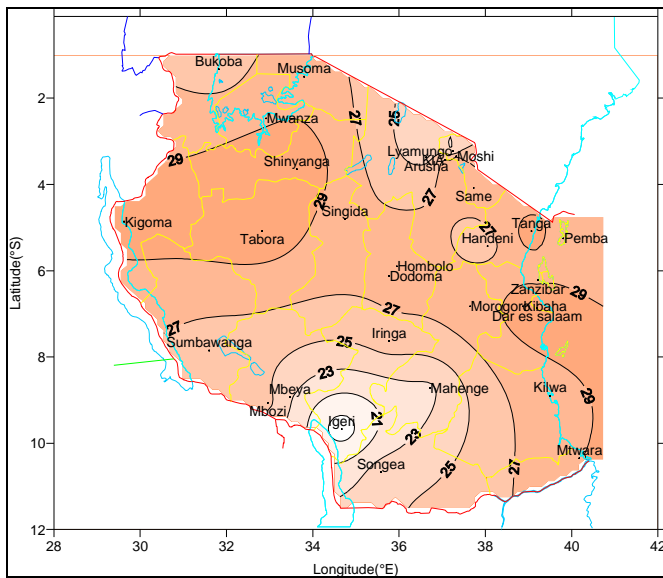


Figure 2A: July 2011 Mean Maximum Temperature (°C)

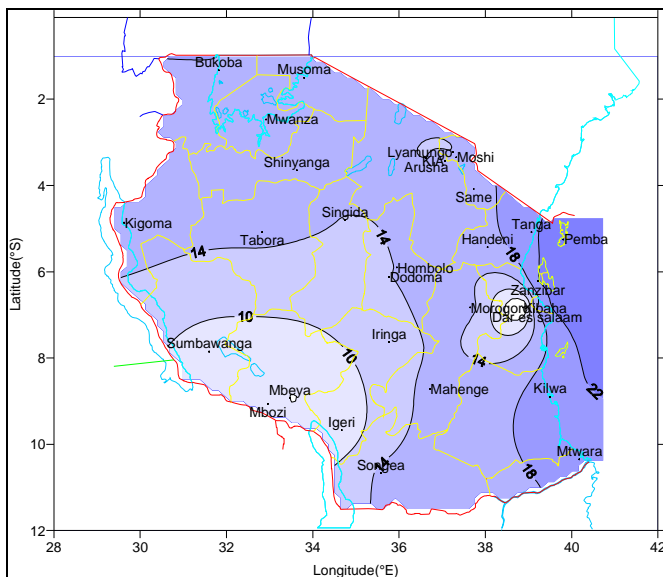


Figure 2B: July 2011 Mean Minimum Temperature (°C)

The lowest value of the mean minimum temperature was about 5.4 °C at Mbeya Airport in the south western highlands while the highest value of about 24 °C was obtained at Pemba over the coastal belt. During the first dekad of the month Mbeya recorded the lowest absolute temperature of about 5°C.

**MEAN SUNSHINE HOURS**

Sunshine durations across the country during July indicated that the mean bright sunshine hours ranged from about 7 hrs/day over a few areas of southwestern highlands particularly Mbozi, to more

than 11 hours/day over some parts of western region of Tabora.

**MEAN WIND SPEED**

Mean wind speeds across the country ranged between 2 km/hr to 10 km/hr during the month of July as indicated in Figure 3. More windy conditions were recorded over Mwanza, Dodoma, Hombolo, Arusha, Pemba, and Mbeya. Low windy conditions were experienced in Morogoro, Moshi Songea, Dar es Salaam International Airport and Lyamungo.

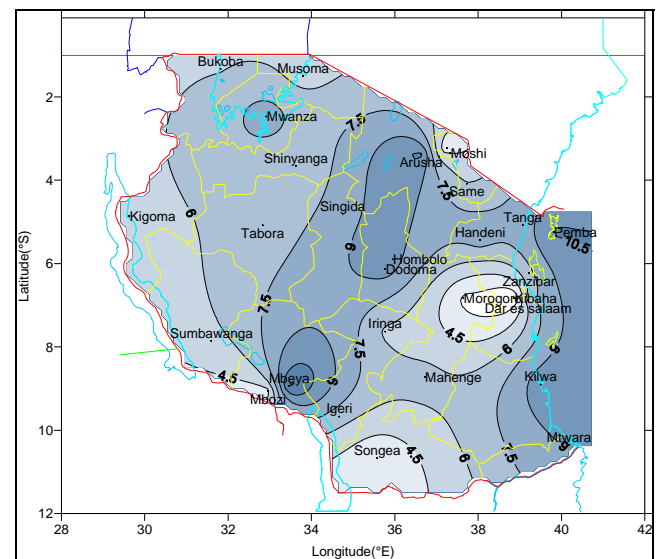


Figure 3: July 2011 Mean wind speed (km/hr)

**AGROMETEOROLOGICAL SUMMARY**

Soil moisture deficits dominated over much of the country resulting into further decline of pastures and water availability for livestock and wildlife as highly pronounced over the central (Dodoma and Singida regions), northeastern highlands (Arusha, Manyara, and Kilimanjaro regions) and parts of northern coast. The situation was on the other hand favorable for marketing of the harvested crops over both unimodal and bimodal sectors with the latter in final harvesting activities.

### HYDROMETEOROLOGICAL SUMMARY

Water levels in lakes and dams, and discharges in rivers in their respective catchments were declining over most areas and are expected to persist as the dry season continues. Water for industrial and domestic purposes should be used sparingly.

### ENVIRONMENTAL SUMMARY

During July the country continued to experience generally cool to cold temperatures, giving comfortable conditions for the coastal belt which is normally warmer but chilly elsewhere. As night temperatures get low, caution should be taken against use of charcoal stoves for heating homes to avoid asphyxiation. Dry and windy conditions increased prospects for diseases such as coughs, colds, pneumonia, and asthma.

### EXPECTED SYNOPTIC SITUATION DURING AUGUST 2011

During the month of August 2011, the Azores and Siberian highs together with the associated Arabian ridge are expected to remain weak while the St. Helena high is expected to intensify. Mascarene high is expected to be relatively weak. The SSTs from central to eastern equatorial Pacific Ocean are expected to be near normal. Neutral SSTs conditions are expected to prevail over central Indian Ocean while slightly warmer conditions are expected over southwestern Indian Ocean. The above configuration is expected to gradually enhance moisture and contribute to occasional wetness along coastal areas.

### EXPECTED WEATHER SITUATION DURING AUGUST 2011

Lake Victoria Basin (Kagera, Mwanza, Mara and Shinyanga regions) is likely to feature mostly normal dry season. However, Kagera region and the Islands within the Lake are likely to experience significant rainfall at times during the month. Western regions (Kigoma, northern Rukwa and Tabora regions) are expected to feature normal dry season.

Northern coast (Dar es Salaam, Morogoro and Tanga regions, the isles of Unguja and Pemba) is likely to feature a few showers especially over the islands and areas along the coast belt. Central areas (Dodoma and Singida regions) are expected to experience mainly dry conditions and cool to cold temperatures. Northeastern highlands (Kilimanjaro, Arusha, and Manyara regions) are likely to feature mainly dry and cool conditions during day times but cold temperatures during night and early morning hours. A few light showers are expected over high grounds.

Southwestern highlands (southern Rukwa, Iringa and Mbeya regions) are expected to feature mainly dry conditions with occasional light rains and cold temperatures particularly during night and early morning hours. Southern region (Ruvuma region): is expected to experience normal dry season with occasional light rains along the Lake Nyasa and chilly weather over high ground areas. Southern coast (Mtwara and Lindi regions) is likely to feature mainly dry conditions with a few light showers along the coastal belt. Moderate southerly to southeasterly winds are expected.

Prepared by

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