

MONTHLY WEATHER BULLETIN

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Review for June 2014 and outlook for July, 2014

HIGHLIGHTS

- Strong winds and cold nights are expected over high ground areas in the southwestern and northeastern highlands.
- Fire hazards (wildfires in particular) are also anticipated due to widespread dry and windy conditions.

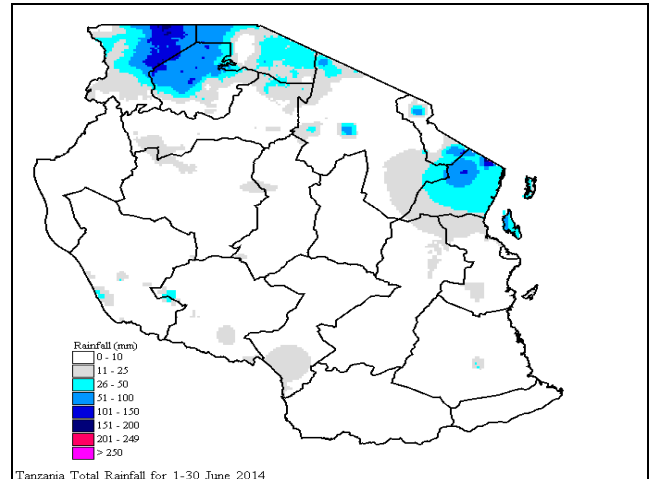
SYNOPTIC SITUATION DURING JUNE, 2014

During the month of June 2014, the northern hemisphere high pressure systems continued relaxing while the southern hemisphere systems continued intensifying. These configurations resulted into further northward movement of zonal arm of the Inter Tropical Convergence Zone (ITCZ), allowing the East African ridge to build up and cover most parts of the country from its position in the southern parts. As for Sea Surface Temperatures (SSTs), neutral SSTs were observed over the Somali coast while warm SSTs were observed over Tanzanian coast. A tropic atmospheric easterly wave formed over the western Indian Ocean and caused more moisture influx over the coastal areas during the last quarter of the period. However, neutral SSTs in the Atlantic Ocean near Angola and Namibian coasts contributed to westward movement of the Meridional arm of the ICTZ from extreme western areas of the country.

WEATHER SUMMARY DURING JUNE, 2014

RAINFALL

In view of the observed synoptic situations, the country featured dry conditions over most of the unimodal areas while over the bimodal areas, rainfall was observed over some areas. The highest rainfall during the month was recorded over Lyamungu (149.5 mm) followed by Bukoba (132.6 mm), Pemba (124.5 mm), Tukuyu (95.7 mm), Mugumu (72.9 mm), and Tanga (56.1 mm). The remaining areas recorded rainfall amounts not exceeding 50 mm. Figure 1 below is the analysis of Satellite Rainfall Estimates (RFE) data merged with gauge data from Tanzania rainfall stations network showing total rainfall distribution during the month with significant rainfall amounts depicted over Lake Victoria basin and the northern coast in the bimodal areas.



Tanzania Total Rainfall for 1-30 June 2014

Fig. 1: Satellite Rainfall Estimates merged with gauge data from Tanzania rainfall stations network showing total rainfall distribution for the month of June 2014

MEAN AIR TEMPERATURE

Mean maximum temperature during the month of June 2014 ranged from about 16°C to about 31°C as indicated in Figure 2a. The highest absolute maximum temperature was 30.8°C observed in Dar es Salaam at JNIA whereas the lowest absolute maximum temperature was 16.4°C observed over Igeri in the southwestern highlands.

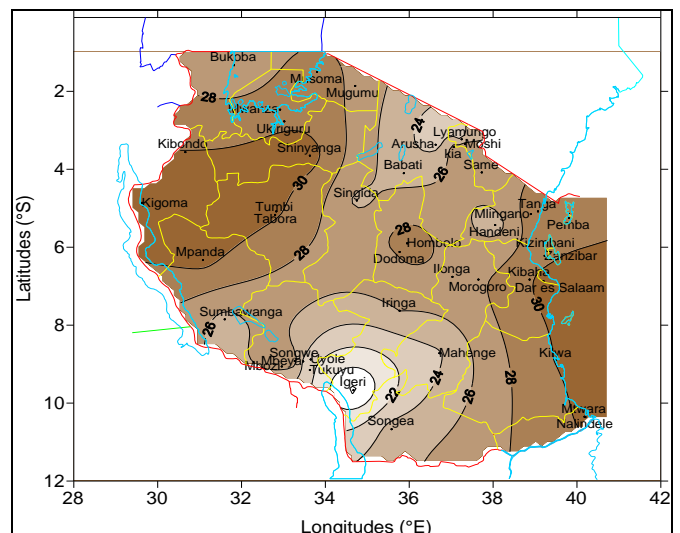


Fig. 2a: June, 2014 mean maximum temperature (°C)

The mean minimum air temperatures during June, 2014 ranged from about 8°C to about 24°C as shown in Figure 2b. The highest absolute minimum temperature was 23.7°C recorded at Pemba whereas the lowest absolute minimum temperature was 8.4°C recorded at Igeri in the southwestern highlands.

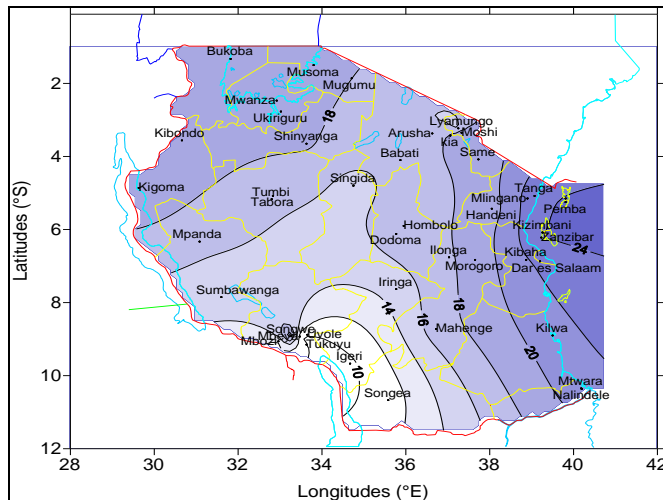


Fig. 2b: June, 2014 mean minimum temperature (°C)

MEAN SUNSHINE HOURS

Sunshine durations across the country during the month of June, 2014 ranged from about 2 hours per day to about 10 hours per day. The shortest sunshine duration was 2.5 hours/day (observed at Lyamungu), while the longest sunshine duration was 9.8 hours/day (recorded over Mbozi) as shown in Figure 3.

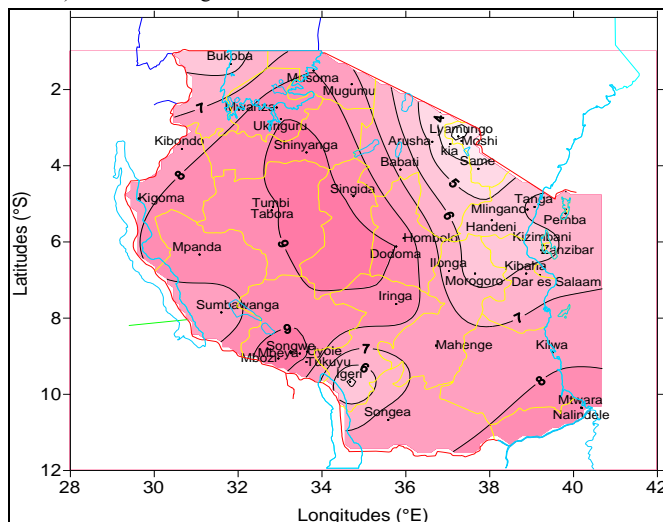


Fig. 3: June, 2014 mean sunshine hours (hrs/day)

MEAN WIND SPEED

Mean wind speed during the month of June 2014, ranged from about 1 to about 16 km/hr across the country. The lowest mean wind speed was 0.9 km/hr recorded over Kibaha whereas the highest wind speed was 15.9km/hr recorded over Songwe Airport as shown in Figure 4.

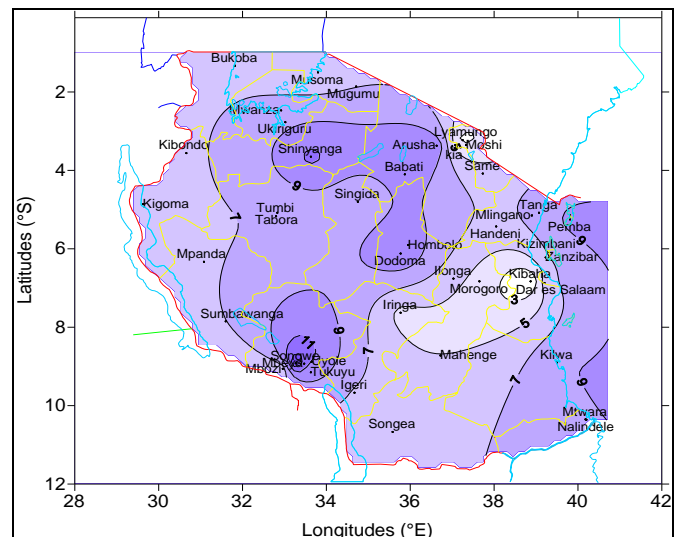


Fig. 4: June, 2014 mean wind speed (km/hr)

AGROMETEOROLOGICAL SUMMARY

During the month of June, 2014, the observed seasonal dry conditions that prevailed over much of the country were favourable for crop harvesting, drying, and storage activities. Pastures and water availability for livestock and wildlife decreased slightly.

HYDROLOGICAL SUMMARY

Water levels in dams and river flows discharges decreased slightly due to dry conditions coupled with high evaporation and strong winds.

ENVIRONMENTAL SUMMARY

During the period, cool to cold temperature conditions prevailed in the country especially during the night.

EXPECTED SYNOPTIC SITUATION DURING JULY, 2014

In July, 2014 the southern hemisphere high pressure systems are expected to continue intensifying while the northern hemisphere high pressure systems are expected to continue relaxing. The Arabian ridge is expected to be eroded due to the deepening of the Siberian lows and troughs. While the zonal arm of the Inter-Tropical Convergence Zone (ITCZ) is expected to maintain its position in the northern hemisphere, the meridional arm of the ITCZ is expected to maintain its position over the Congo basin and contribute to reduced rainfall over western and the Lake Victoria basin. Slight neutral to warm Sea Surface Temperatures (SSTs) currently observed over the

Somali coast and South Western Indian Ocean (SWIO) closer to Tanzania, are expected to persist, thus resulting to few occasional rainfall and periods of strong wind at times.

EXPECTED WEATHER DURING JULY, 2014

Lake Victoria Basin (Kagera, Geita, Mwanza, Mara, Simiyu and Shinyanga regions together with northern Kigoma regions): Mainly dry and cold conditions are expected. However, episodes of moderate thunderstorms and rainshowers at times are expected, especially during the third and fourth weeks of the month. Northern coast (Dar es Salaam, Morogoro and Tanga regions, the isles of Unguja and Pemba): Cold night temperatures and periods of strong winds are expected. A few rains are also expected with short periods of moderate rains especially during the third and fourth weeks of the month. Northeastern highlands (Kilimanjaro, Arusha and Manyara regions): Mainly dry and cold conditions are expected. However, occasional rains are expected over high grounds. Western regions (Kigoma, Rukwa and Tabora regions): Mainly dry and cold conditions and occasional showers over few areas are expected. Central areas (Dodoma and Singida regions): Mainly dry, windy and cold temperature conditions are expected. Southwestern highlands (Southern Rukwa, Katavi, Njombe, Iringa and Mbeya region): Mainly dry and cold conditions are expected. Very cold weather conditions are likely over high grounds. Southern Coast (Mtwara and Lindi regions): Mainly dry and cool temperature conditions are expected. A few showers and periods of strong winds are also expected at times. Southern region (Ruvuma region): Mostly cloudy, dry and cold conditions are expected.

AGROMETEOROLOGICAL OUTLOOK DURING JULY, 2014

During the month of July 2014, the expected dry conditions over most of the country will be favourable for the on-going crop harvesting activities. While strong winds and cold nights are expected over high ground areas in the southwestern and northeastern highlands, heating up of homes by using charcoal stoves, firewood, etc. should be done with great care to avoid asphyxiation from carbon monoxide. Fire hazards (wildfires in particular) are also anticipated due to widespread dry and windy conditions over much of the country.

Prepared by

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