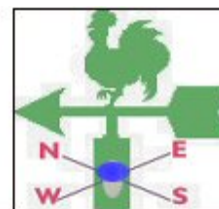




TANZANIA METEOROLOGICAL AGENCY



MONTHLY WEATHER BULLETIN

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HIGHLIGHTS

- The 2007 crop harvest in the country is generally anticipated to be below the good harvest of 2006.
- Observed negative departures of NDVI over the livestock potential areas (northeastern highlands, Lake Victoria basin, and Tabora region) is the preliminary indicator that the anticipated pasture supply is likely to be below that of 2006.
- Maximum temperatures in June decreased slightly by about 1 °C, while minimum temperature decreased by about 4 °C.

SYNOPTIC SUMMARY

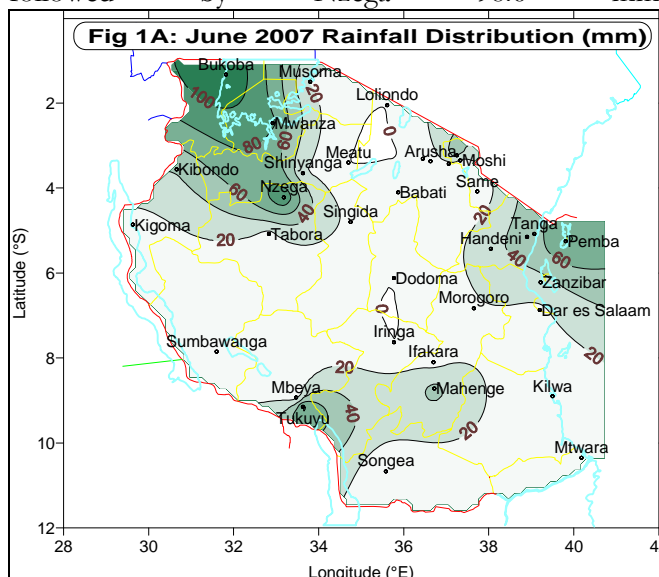
During the month of June, the southern hemisphere systems, the St. Helena and Mascarene anticyclones were strong, and East African ridge extended further north. The northern hemisphere systems, the Azores and Siberian anticyclones together with Arabian ridge were relaxed thus maintaining the position of the Inter-Tropical Convergence Zone (ITCZ). The cyclonic systems over southern hemisphere were propagating eastwards eroding extra-tropical anticyclones, thus allowing intrusion of southeasterly wind flow over coastal strip. This coupled with the Near Equatorial Trough (NET) observed over northwest Indian Ocean for southeasterly backing to northeasterly hence influenced lightly rainshowers over northern coast and northeastern highlands. The existence of the weak trough over Lake Victoria Basin had influenced thundershowers over the area. In general, the southerly to southeasterly flow dominated over the entire coast. Otherwise the cold air flow was more experienced over southwestern highlands.

WEATHER SUMMARY

RAINFALL

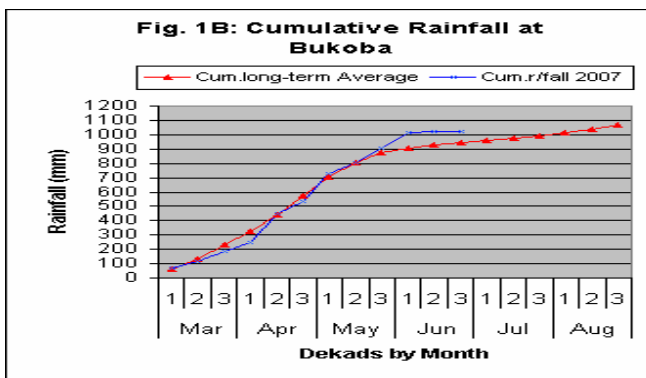
The rains continued during June over few areas of the unimodal and bimodal rainfall patterns where some of the recording stations reported monthly rainfall amounts that exceeded 80 mm (Fig. 1A). The

highest rainfall recorded was 120.2 mm at Bukoba followed by Nzega 98.6 mm,



Tukuyu 84.7 mm, Mwanza 84.1 mm, and Pemba 82.2 mm. Rainfall was below 50 mm over much of the unimodal rainfall pattern areas and northeastern highlands of the bimodal regime (as shown in Fig. 1A).

Figure 1B depicts performance of long rains (Masika)

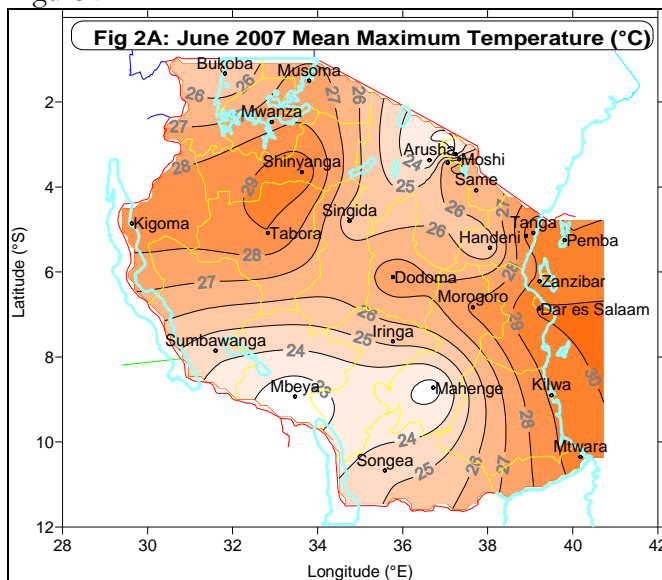


at Bukoba Airport when current cumulative dekadal rainfall amounts (actual) were compared with long-

term dekadal cumulative average values for the period from March to June. Masika rains over this area started normally but they were generally below normal during March and April.

MEAN AIR TEMPERATURE

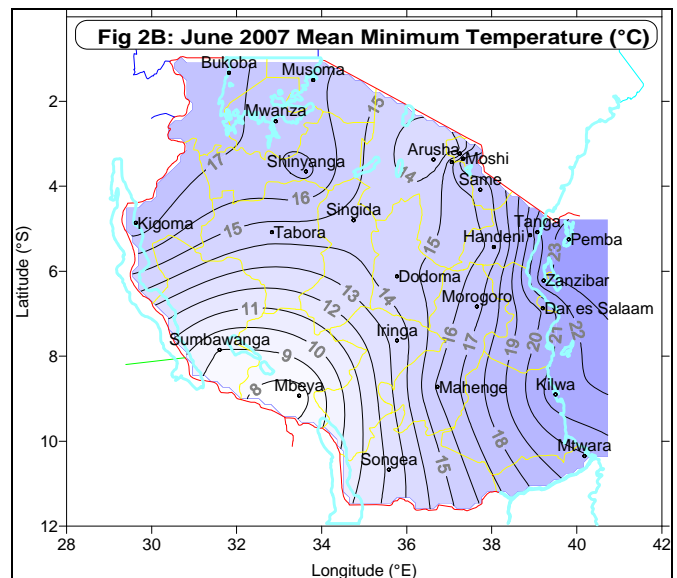
Temperatures dropped slightly during the month of June. The spatial mean maximum and minimum values are shown in Figs. 2A and 2B respectively. The mean maximum temperature ranged between just above 30 °C and just below 23 °C as indicated in Figure 2A.



The highest mean maximum temperature recorded during the month was about 30.1°C at Dar es Salaam in the coastal belt, while the lowest was about 22.3 °C at Mbeya in southwestern highlands. The highest values were observed during the first dekad of the month. Dar es Salaam reported the highest 10-day maximum temperature of 30.5 °C during the first dekad of the month.

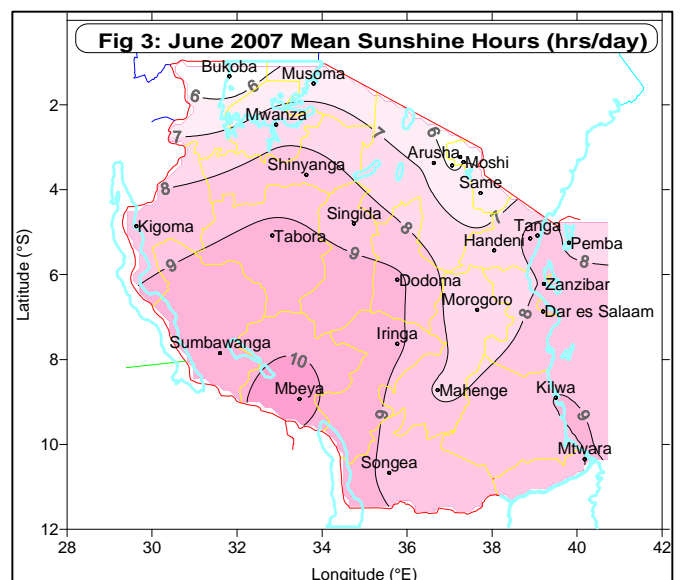
The mean minimum air temperatures ranged from just below 8 °C to slightly above 23 °C as shown in Fig. 2B. The lowest value of the mean minimum temperature recorded was about 7.5 °C at Mbeya, while the highest value was about 23.7 °C in the island of Pemba. Mbeya reported a 10-day minimum temperature of about 6.0 °C during the second and third dekads.

Compared with temperature conditions in May the maximum temperatures in June decreased slightly by about 1 °C, while minimum temperatures decreased by about 4 °C.



MEAN SUNSHINE HOURS

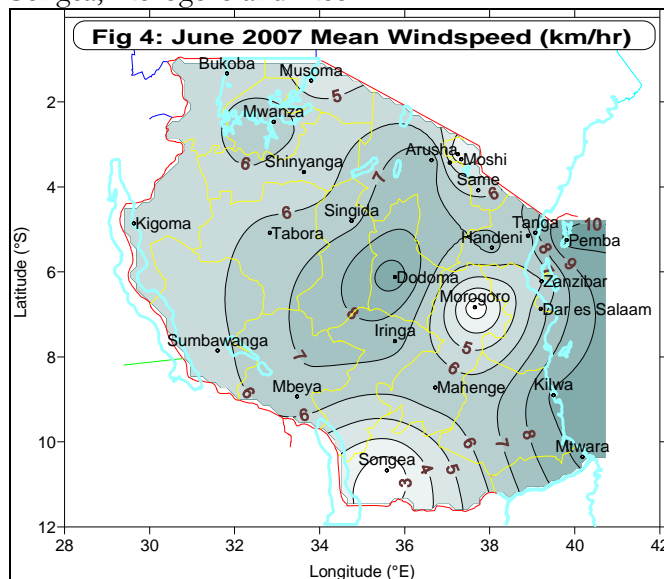
Spatial distribution of mean sunshine hours across the country during June indicates that the duration of mean bright sunshine hours ranged from below 6 hrs/day in the northeastern highlands and Lake Victoria basin areas to above 10 hrs/day over the southwestern highlands as shown in Fig. 3.



Clear skies covered most of the country accounting for more durations of insulations (sunshine durations >8 hrs/day).

MEAN DAILY WIND SPEED

During the period mean wind speed across the country ranged between about 3 and 10 km/hr as indicated in Fig. 4. The central areas and coastal belts experienced windy conditions with wind speeds exceeding 8 km/hr. Slight winds of less than 3 km/hr had the cores of minimum speeds located over Songea, Morogoro and Moshi.

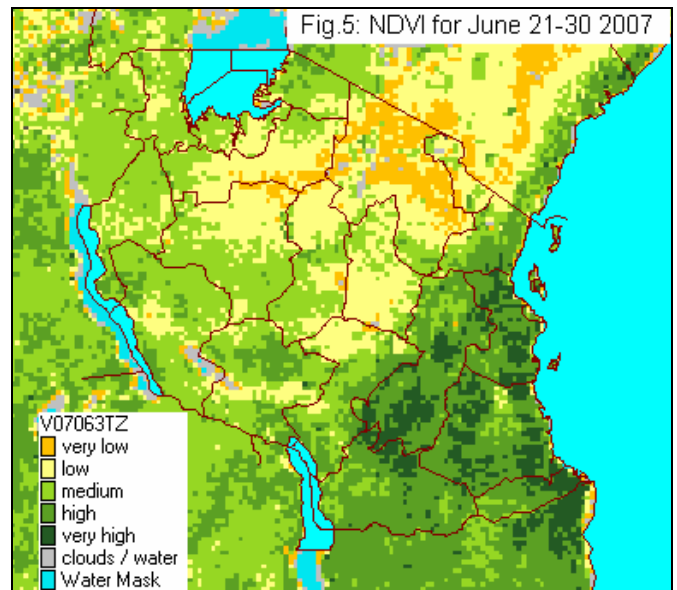


The increased wind speed accompanied with low rainfall over central areas increased prospects for occurrences of dust devils, wind erosion, and higher evaporation rates.

SATELLITE INFORMATION

Figure 5 depicts the status of vegetation greening and coverage during the third dekad of June 2007 as Normalized Difference Vegetation Index (NDVI) from METEOSAT satellite sensor. In dekad 3 June 2007, the satellite depicted NDVI between very low to low indices over most parts of the northeastern highlands (Arusha, Manyara, and Kilimanjaro regions), Lake Victoria basin (Shinyanga region), western (northern part of Tabora region), and central (Dodoma and Singida regions), and northern Iringa region. However, the vegetation has performed better (high to very high indices) mainly over the southern regions and coastal belt. The observed low NDVI indices over the livestock potential areas (northeastern highlands, Lake Victoria basin, central and Tabora

region) is the preliminary indicator that the anticipated pasture supply is likely to be low as the dry season continues.



AGROMETEOROLOGY

During the month declined soil moisture levels continued to be recorded over much of the unimodal and bimodal rainfall areas. Most farmers across the country engaged in harvesting activities mainly of maize and paddy except over a few pockets in the southwestern highlands (Njombe district) and northeastern highlands (Tarime and Loliondo districts) where maize crop was reported as being at ripeness stages. However, over some parts of the northern coast and northeastern highlands (Same, Simanjiro, Loliondo, and Monduli districts and lowlands of Rombo district), maize crop continued to deteriorate due to further decrease of soil moisture.

Generally, crop performance over bimodal areas ranged between moderate to poor states while over unimodal areas crops' situation was rated between good and moderate. Poor crop performance was attributed to irregular supply of soil moisture caused by late onset of the rain season, dry spells and early cessation of rains. The 2007 crop harvest in the country is generally anticipated to be below the good harvest of 2006.

Root crops, mainly cassava and sweet potatoes were still performing well and market supply was good.

Pasture conditions and water availability for livestock and wildlife continued to be adequate across the country.

HYDROMETEOROLOGY

Water levels in rivers, lakes and dams are good over much of the country. However, water for industrial and domestic purposes should be used sparingly.

ENVIRONMENTAL

The country experiences generally cool temperatures and comfortable conditions.

EXPECTED SYNOPTIC SITUATION DURING JULY 2007

The Arabian ridge, Siberian and Azores anticyclones over the northern hemisphere are expected to continue relaxing, therefore maintaining the position of the ITCZ to the north of the equator.

The St. Helena and Mascarene anticyclones and the East African ridge over the southern hemisphere will remain intense allowing cold dry air to dominate over the country. The weak trough observed over Lake Victoria Basin is also expected to persist, hence influencing light thundershowers over the area.

EXPECTED WEATHER SITUATION DURING JULY 2007

Northern coast (Pwani, Dar es Salaam and Tanga regions, together with northern Morogoro, and Zanzibar and Pemba Islands) and northeastern highlands (Arusha, Kilimanjaro and Manyara regions) are expected to feature occasional isolated rainshowers and sunny periods. Lake Victoria basin (Kagera, Mwanza, Shinyanga, and Mara regions) is expected to feature isolated thundershowers over few areas with sunny periods. Western areas (Kigoma and Tabora regions) are expected to have sunny periods with occasional thundershowers over few areas. Southwestern highlands and southern (Iringa, Mbeya, Rukwa, Ruvuma and Southern Morogoro region regions), southern coast (Mtwara and Lindi regions), and central areas (Dodoma and Singida regions) will feature mostly partly cloudy conditions with sunny periods. Further outlook; little change is expected.

Prepared by

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