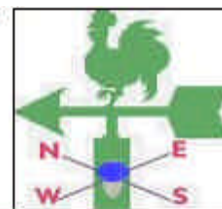




TANZANIA METEOROLOGICAL AGENCY



MONTHLY WEATHER BULLETIN

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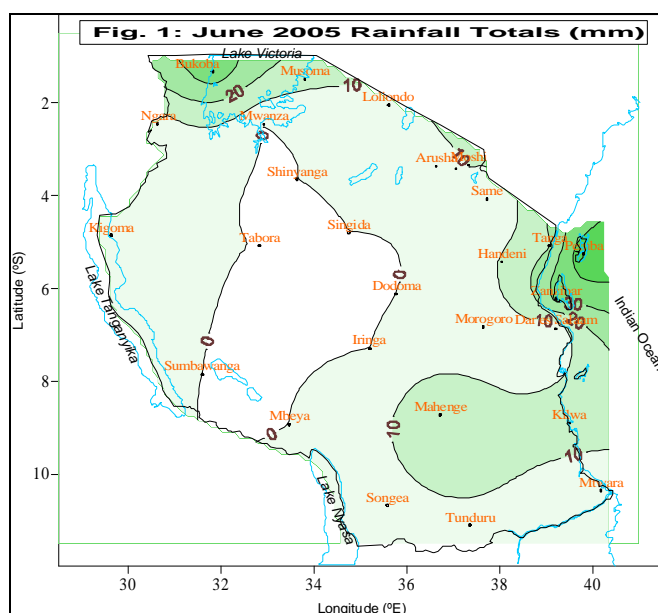
JUNE - HIGHLIGHTS

- . Dominant East African low level jet over the coast
- . Persistent dry conditions favored drying of matured crops

SYNOPTIC SUMMARY

During the month of June, the Arabian, St. Helena and Azores anticyclones were relatively weak while the Mascarene anticyclone and the associated ridge (East African) were generally intense.

The near equatorial trough was active over the northern coast. The southeasterly to southerly wind flow south of 5°S becoming Southwesterly flow north of 5°S over the eastern coast of East Africa, the "East African Low Level Jet" was dominant.



WEATHER SUMMARY

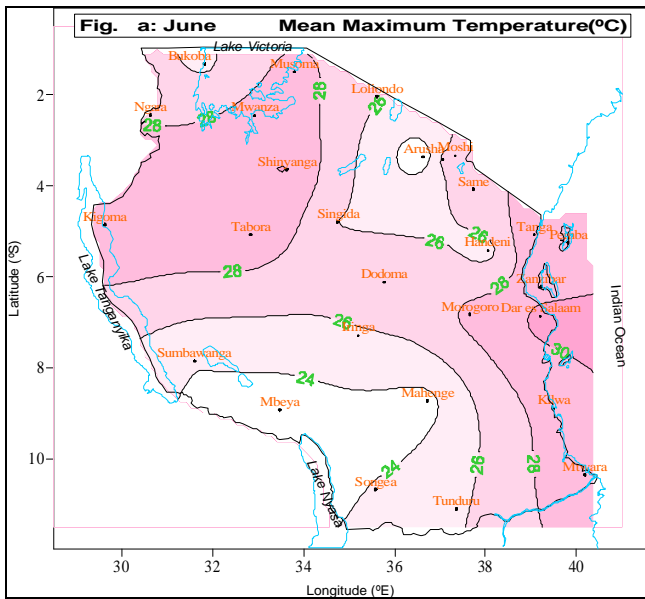
RAINFALL

Dry conditions prevailed in many parts of the country, except for a few areas of Kagera region and northern coast including the islands of Zanzibar and Pemba where the monthly rainfall record was at least 20 mm (Fig. 1). The Highest total monthly rainfall was 47.7 mm (Pemba).

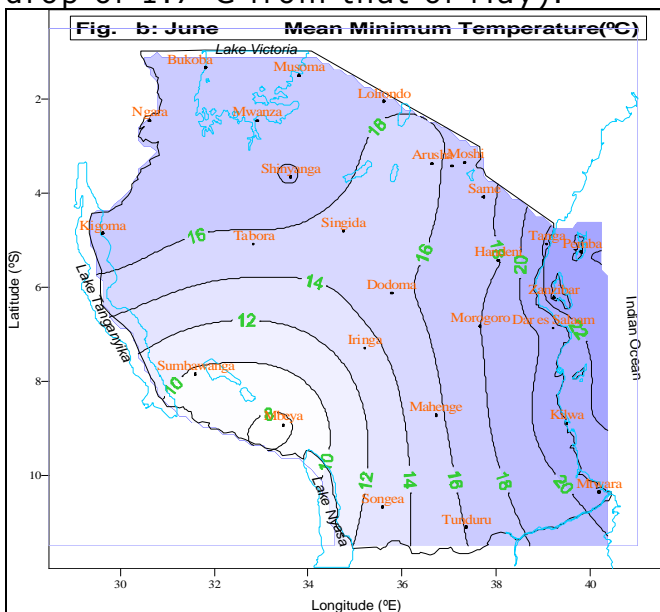
Areas of Mahenge and the coastal belt received light rains of at least 10 mm during the month.

MEAN AIR TEMPERATURE

Maximum and minimum air temperatures across the country during June are indicated in Figs. 2a and 2b respectively. Observed mean maximum temperature ranged between just above 30°C and just below 24°C as shown in Figure 2a. Areas over the southwestern highlands (Rukwa, Mbeya, Ruvuma and Iringa regions), Mahenge and Arusha continued experiencing lower maximum temperatures (slightly below 24°C), while higher values just above 30°C were observed over Shinyanga (30.1°C) and Dar es Salaam (30.6°C).



Arusha airport in northeastern highlands recorded the lowest mean maximum temperature of 22.7°C (a drop of 1.7°C from that of May).



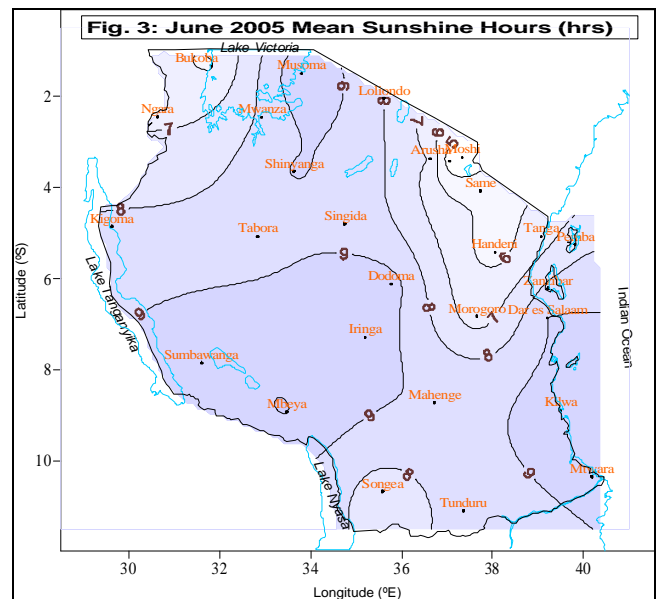
On the other hand, the mean minimum air temperatures during the month ranged from just below 8.0 °C to just above 22°C (a drop of 2.0°C compared to May) (Figure 2b).

Areas over the southwestern highlands continued experiencing relatively cooler conditions (temperatures less than 14°C) with the lowest mean minimum temperature of 7.5°C recorded at Mbeya airport. The lowest value (7.2

°C) was recorded during the second dekad of the month.

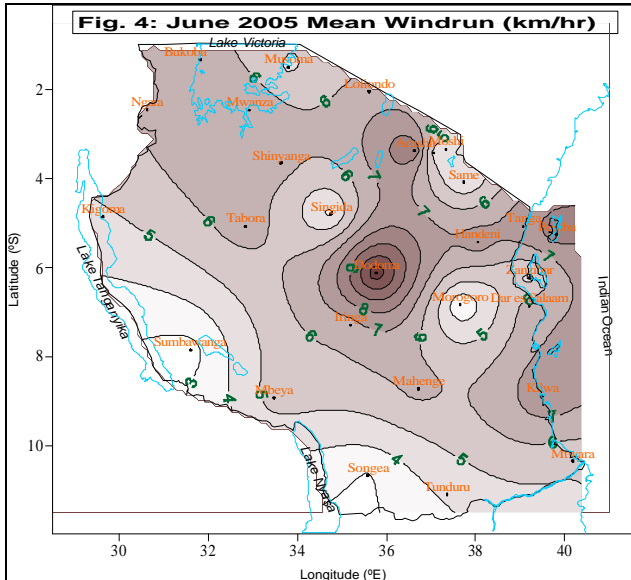
SUNSHINE HOURS

Figure 3 indicates the average duration of bright sunshine expressed in hours per day. The country experienced bright sunshine for durations averaged between about 4 hours/day over northeastern highlands to just about 10 hours/day (Musoma and southwestern highlands). The lowest values of about 2 hrs/day were observed at Tanga and Kilimanjaro airports during the second dekad of the month. A normally dry season during June has enhanced clear skies over most areas.



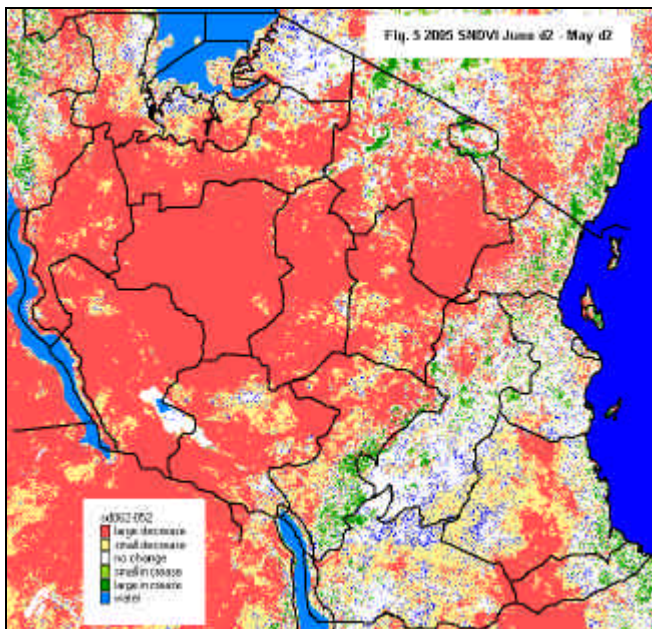
MEAN DAILY WINDSPEED

Mean wind run across the country during the month of June ranged from about 3 km/hr (Sumbawanga, Songea and Morogoro municipalities) to a maximum of about 12 km/hr (Dodoma) as shown in Figure 4. The lowest value of 2.6 km/hr was recorded over Sumbawanga while the highest wind speed of 11.7 km/hr was experienced at Dodoma airport).



SATELLITE INFORMATION

Figure 5, displays the satellite imagery derived from the difference between Spot Normalized Difference Vegetation Indices (SNDVI) of the second dekad of May and June 2005 indicating the changes that occurred during the period.



A large decrease in vegetation greenness was observed over most parts of Western, Central, southwestern highlands (Mbeya and

Iringa north), northeastern highlands (Manyara and Kilimanjaro regions) and Shinyanga region. Persistence of dry conditions in June, highlights further decrease in NDVI and the likelihood of the reduction in the quality and supply of pastures.

On the other hand, small decrease or no change in the SNDVI was observed over the southern region and the coastal belt, the condition which was attributed to light rains received in these areas during the month.

AGROMETEOROLOGY

Most crops including annuals (cereals and pulses) and perennials (tree crops) reached harvesting stage and the persistent dry conditions accelerated them to full dry down. Over unimodal rainfall pattern (southern, southwestern highlands, western and central) areas harvesting of crops continued.

On the other hand soil moisture supply from light rains over bimodal rainfall pattern (Lake Victoria basin, northeastern highlands, northern coast) enhanced favorable conditions for maize crop to reach to physiological maturity, and growth of cassava which was at various stages. Moreover, these rains also were favorable to growing sweet potatoes over the northern coast.

Expected occasional rains over northern coast during July will impede drying and harvesting of maize, thereby reducing the quality of the crop. Generally, the estimated yield levels reported in many areas were below average of last year's values. This was mainly due to insufficient soil moisture supply experienced during the cropping season.

HYDROMETEOROLOGY

There has not been any increase in water levels in rivers and water reservoirs. Water for industrial and domestic purposes should be used sparingly.

ENVIRONMENTAL

Windy, cooler and dry conditions across the country that prevailed during the month, enhanced prospects for diseases such as colds, coughs, pneumonia and asthma.

EXPECTED SYNOPTIC SITUATION DURING JULY

The Arabian and Azores anticyclones are expected to remain relatively weak while the St. Helena and Mascarene anticyclones and the associated ridge (East African) are likely to remain intense. The Inter-tropical Convergence Zone (I.T.C.Z) will continue to remain to the north of equator while the near equatorial trough will be active over the northern coastal areas.

The southeasterly wind flow south of 5°S becoming southwesterly flow north of 5°S over the eastern coast of East Africa will be a dominant feature during the month.

EXPECTED WEATHER SITUATION DURING JULY

The northern coast (Tanga and Dar es Salaam) and islands of Zanzibar and Pemba will experience partly cloudy conditions with occasions of morning light rains over few areas and sunny periods during the afternoon hours. Lake Victoria Basin will feature partly cloudy conditions with few thunderstorms mainly over northern side of the lake and sunny periods.

Southern, Central and western areas will experience partly cloudy conditions with chilly mornings and sunny periods. Southwestern and northeastern highlands will experience cloudy mornings with chilly weather conditions followed by sunny periods during the afternoon hours.

Prepared by

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