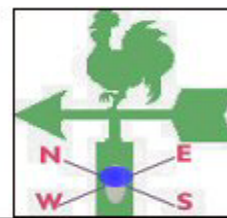




TANZANIA METEOROLOGICAL AGENCY



MONTHLY WEATHER BULLETIN

ISSN No: 0856-0919, Volume 8, Issue 7

July 2006

JULY - HIGHLIGHTS

- *Harvesting of maize over higher altitude areas of unimodal pattern has started.*
- *Chilly weather conditions were observed over most part of the southwestern highlands.*

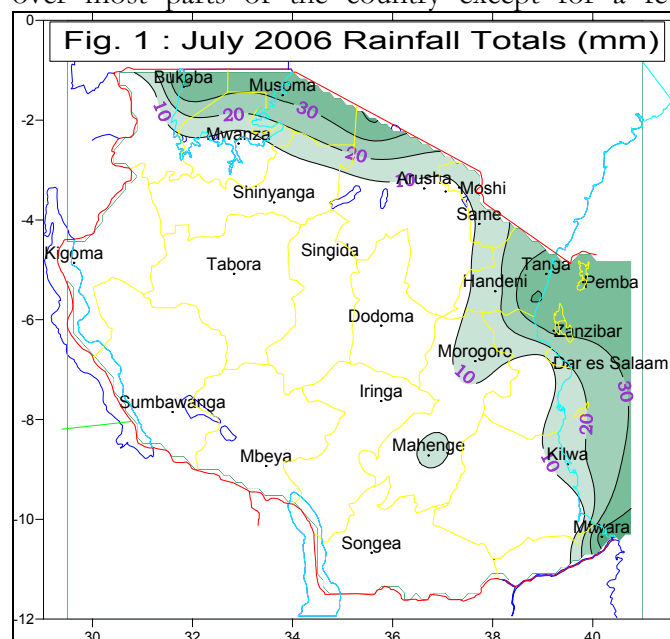
SYNOPTIC SUMMARY

The Siberian and Azores anticyclones and the Arabian ridge over the northern hemisphere remained weak. Over the southern hemisphere anticyclones (St.Helena and Mascarene) and East African ridge continued to intensify. Over the east African coast, 5°S, southeasterly monsoon flow pattern was apparent and a dominant feature throughout the month of July.

WEATHER SUMMARY

RAINFALL

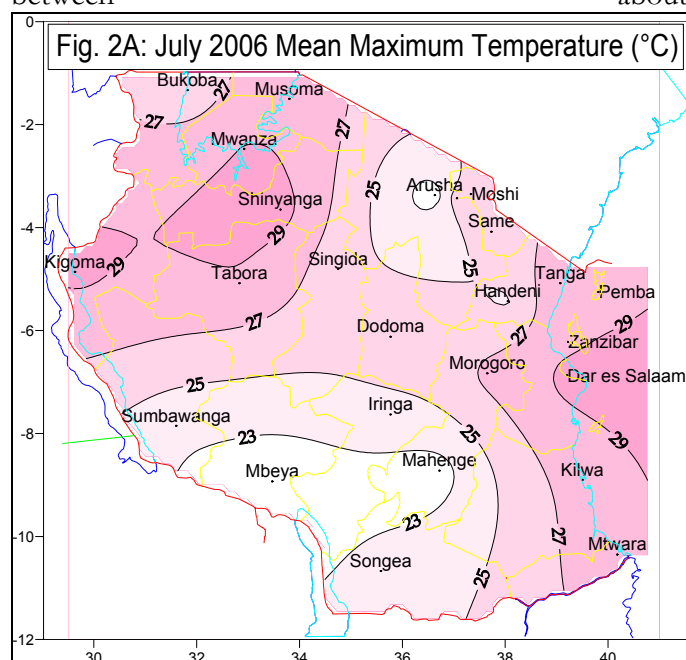
During the month of July dry conditions dominated over most parts of the country except for a few



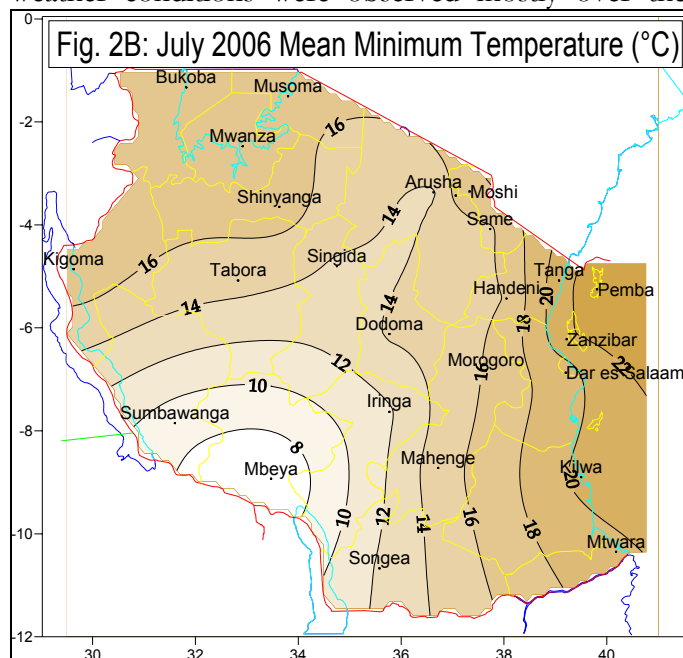
occasions of rainfall showers over the coastal line and Lake Victoria basin. Observed higher amounts were recorded at Mtwara Airport 47.4mm, Bukoba Airport 41.3mm and Pangani Agriculture 41.2mm as shown in Figure 1, a 30mm contour marked a 'strip around the stations named above.

MEAN AIR TEMPERATURE

Temperature conditions for the month of July were expressed as mean maximum and minimum values as shown in Figs. 2A and 2B respectively. Observed mean maximum temperature ranged between about



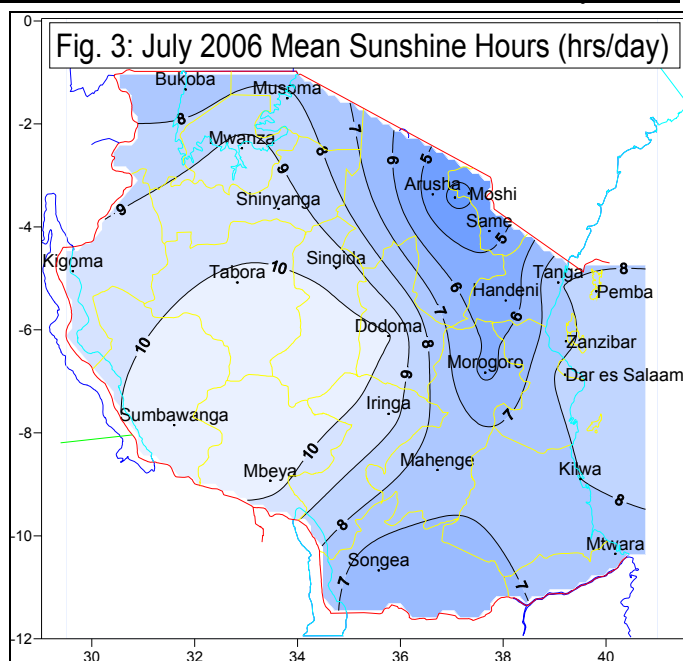
Mean minimum air temperatures ranged from just below 8 °C to slightly above 22.0 °C (Fig. 2B). Generally, the country in July experienced much cooler conditions compared to the past month. Chilly weather conditions were observed mostly over the



highlands in the southwestern part of the country (Rukwa, Mbeya and Iringa regions). Mbeya town recorded the lowest mean minimum temperature of about 5.9 °C and the observed lowest minimum temperature was 3.9 °C during the first dekad of the month.

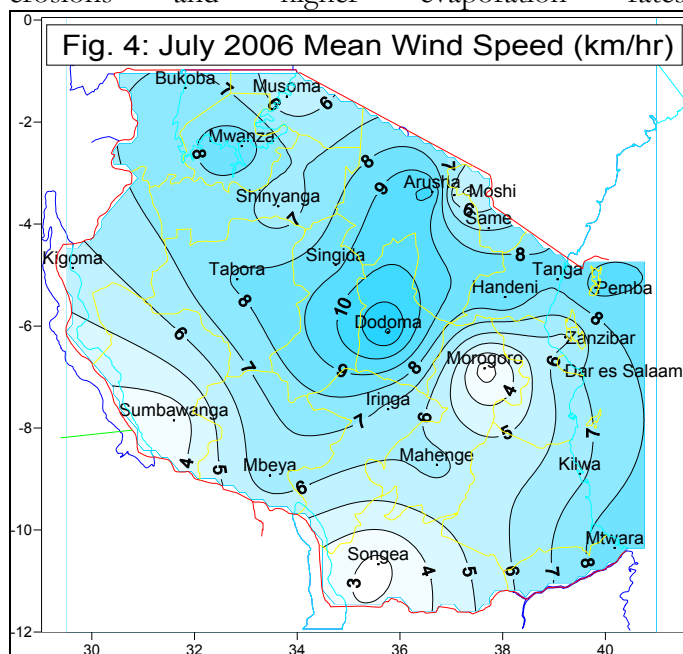
MEAN SUNSHINE HOURS

Figure 3, indicates spatial distribution of mean sunshine hours across the country during July. Durations of mean bright sunshine hours ranged between about 3 and 10 hrs/day. Over a large part of western sector that includes Kigoma, Rukwa, Mbeya, and Tabora regions, central areas (Singida and Dodoma regions) experienced longer durations of about more than 10 daylight hours mainly due to a large decrease in cloudy activities over the areas. Shorter durations of less than 6 hrs/day covered Arusha and Kilimanjaro regions over northeastern reas and similar conditions were also observed in Ruvuma region.



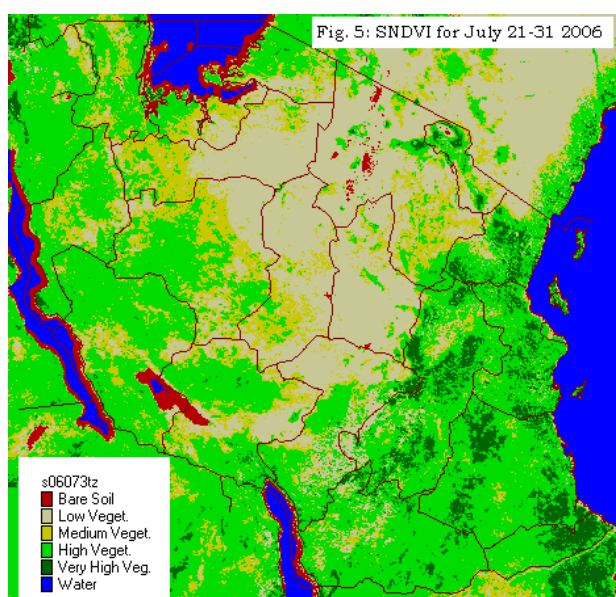
MEAN DAILY WIND SPEED

Mean wind speed across the country ranged from just below 3 km/hr to 12 km/hr as depicted in Figure 4. The core of maximum speed of about 12 km/hr was located over central areas (Dodoma region), while Sumbawanga, Songea, and Morogoro regions had calm conditions of about 2 km/day. The wind strength increased mainly over central regions raised prospects of dust devils occurrences, wind erosions and higher evaporation rates



SATELLITE INFORMATION

During the month seasonal dry conditions continued to prevail across the country depicting on average lowest green vegetation cover. Central areas (Dodoma and Singida regions, northern parts of Iringa), eastern Shinyanga region and lowlands of the northeastern areas recorded a normalized difference vegetation index of low vegetation. The eastern sector of the country was relatively greener depicting patches of localized areas with high vegetation. The western sector recorded vegetation cover ranging from medium to high levels as shown in Figure 5.



AGROMETEOROLOGY

During the month, harvesting of maize over higher altitude areas of unimodal pattern has started as reported from Iringa region in the districts of Mufindi, Makete and Ludewa. For Njombe district (Iringa) maize crop in good state has just reached full ripeness stage. Likewise higher altitudes areas in in Mwanga district (in Kilimanjaro region) maize harvesting was reported. Over bimodal rainfall regimes farmers, were completing harvesting of maize, sorghum/millet and paddy except for the areas of northeastern highlands (Kilimanjaro, Arusha and Manyara) regions where harvesting was continuing. Cassava was in good state across the country and was

progressing well at various growth stages except over Kagera region where the crop was reported at moderate state as a result of cassava mosaic disease (Batobato kali) affected the crop.

Harvesting for 2006 *Masika* crop over most of bimodal rainfall regime, crops yield anticipated to be higher than the previous same season.

Pasture and water for livestock/wildlife across the country generally was at satisfactory level.

HYDROMETEOROLOGY

Given the low humidity and prevailing winds during July, there will be higher evaporation rates leading to a reduction in water levels in rivers, lakes and dams. Water for domestic and industrial purposes should be used sparingly.

ENVIRONMENTAL

Nights and mornings are chilly due to prevailing low temperatures and windy conditions. In high altitude areas where temperatures are getting low, charcoal stoves should be used cautiously to heat up homes to avoid asphyxiation from carbon monoxide.

EXPECTED SYNOPTIC SITUATION DURING AUGUST 2006

The northern hemisphere systems (Siberian and Azores anticyclones) are expected to continue weakening while over the southern hemisphere, the Mascarene, St. Helena anticyclones and East African ridge are expected to remain strong and intense. The near equatorial trough over the north-eastern parts of the country is expected to be active and deep and continue to cause morning light rains over the coastal strips of Tanzania in August. The Inter Tropical Converging Zone (ITCZ) will continue to remain further to the north near the horn of Africa. The wind patterns over the coast will be more of southeasterly to southerly becoming southwesterly on reaching the East African coast to feed the South-westerly (SW) monsoons over Indian continent.

**EXPECTED WEATHER SITUATION
DURING JULY 2006**

Lake Victoria basin (Kagera, Mwanza and Musoma) areas will experience partly cloudy conditions with occasional thundershowers over few areas and sunny periods. Southwestern highlands (Iringa, Mbeya and Rukwa regions), southern region (Ruvuma) and southern coast are expected to feature cloudy to partly cloudy conditions with cold nights and mornings with chilly weather conditions and sunny periods in the afternoons. North-eastern highlands (Arusha, Moshi and Manyara regions) will experience partly cloudy and cold night's and mornings with light rains mainly over high grounds and sunny periods. The northern coast (Coast region, Dar es Salaam, Tanga, Zanzibar and Pemba) and some parts of Morogoro will experience partly cloudy conditions with occasions of morning light rains over few areas and sunny periods. Central areas (Dodoma and Singida) and western parts of the country (Kigoma and Tabora areas) will feature partly cloudy conditions and sunny periods

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