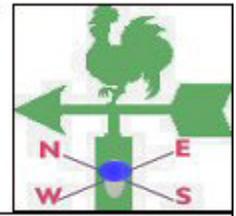




# TANZANIA METEOROLOGICAL AGENCY



## MONTHLY WEATHER BULLETIN

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### JUNE – HIGHLIGHTS

- Decline of soil moisture over the country was beneficial to matured crops (maize, sorghum/ millet, beans and paddy) in the fields
- 2006 Masika crop harvest over most of bimodal rainfall regime is anticipated to be above that of 2005 cropping season

### SYNOPTIC SUMMARY

The Arabian ridge, the Azores and Siberian anticyclones over the northern hemisphere were generally weak, which enabled the East African ridge to extend further north, as the southern hemisphere anticyclones (St. Helena and Mascarene) continued to intensify. The near equatorial trough continued to be active over the northern sector of the country. The meridional component of the ITCZ over the western part of the country was generally weak. Southeasterly to southerly wind flows over the Tanzanian coast were dominant.

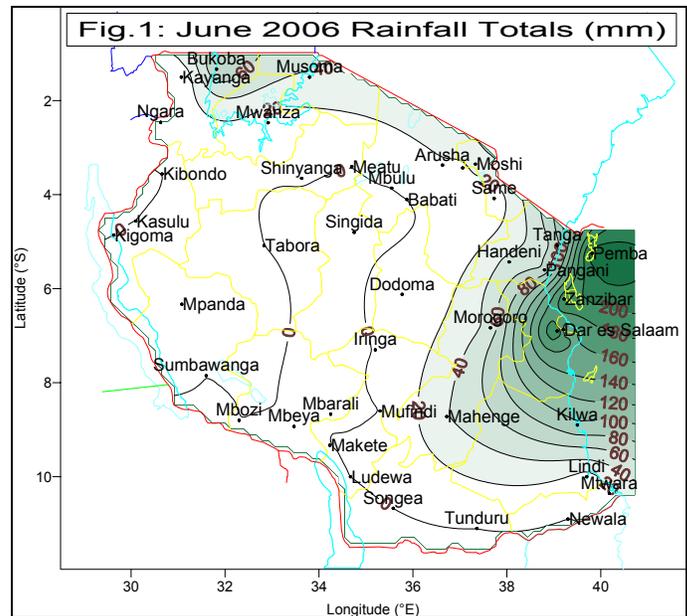
### WEATHER SUMMARY

#### RAINFALL

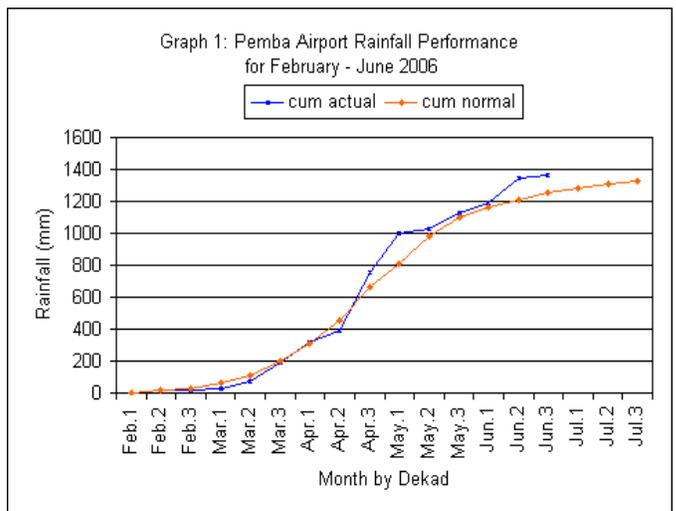
Rainfall activities during the month were dominant over most of the coastal belt and parts of Lake Victoria basin as shown in Figure 1. Elsewhere including parts of central areas (Singida and Dodoma regions), Manyara region, western and southern sectors of the country were generally dry with a few areas reporting rainfall less than 20 mm. Cessation of rains across the country has become evident following the decreased rainfall amounts observed during the period as compared to that of May. The normal dry season spread across the country during the third dekad of June. The highest rainfall amount recorded during the month was 232.3 mm over Pemba Island.

Graph 1 depicts performance of long rains at Pemba airport when current cumulative dekadal rainfall amounts (actual) were compared with long-term

dekadal cumulative normal values for the period from February to June.

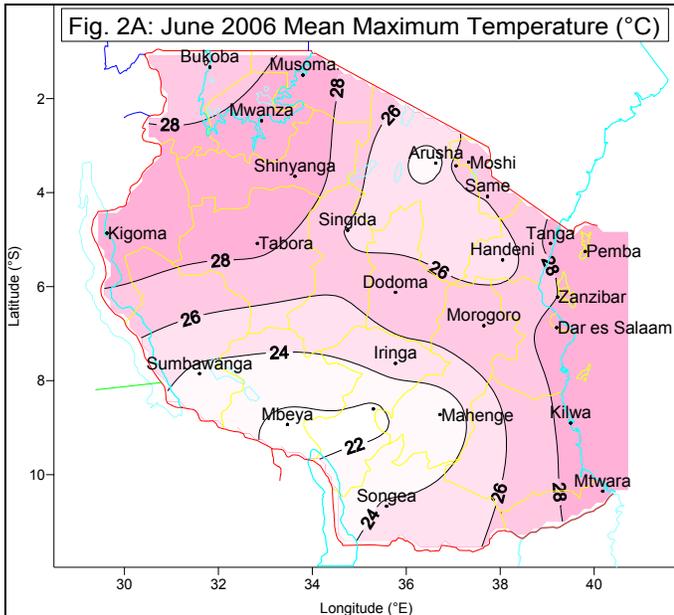


Masika rains over this area and parts of the northern coast were generally above normal.

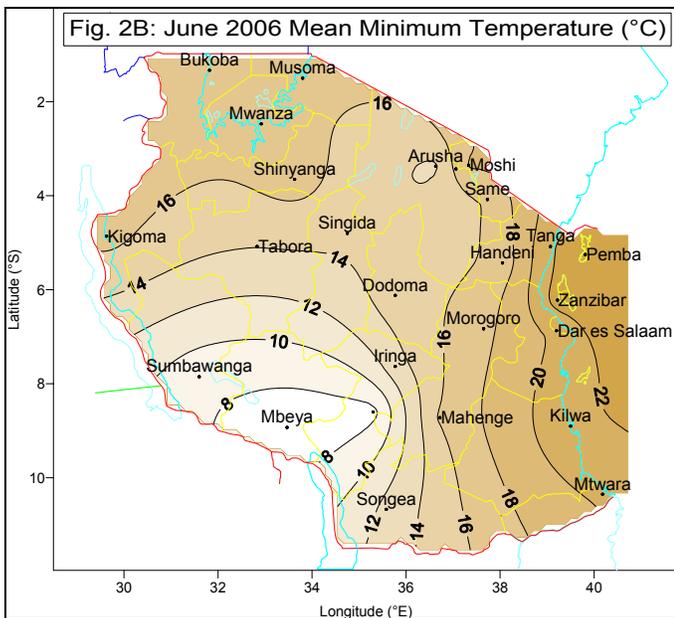


**MEAN AIR TEMPERATURE**

Temperature conditions for the month of June were expressed as mean maximum and minimum temperatures as shown in Figs. 2A and 2B respectively.



Observed mean maximum temperature ranged between about 22 °C over southwestern highlands and just above 28 °C along the coastal belt, parts of western and Lake Victoria basin (Fig. 2A).

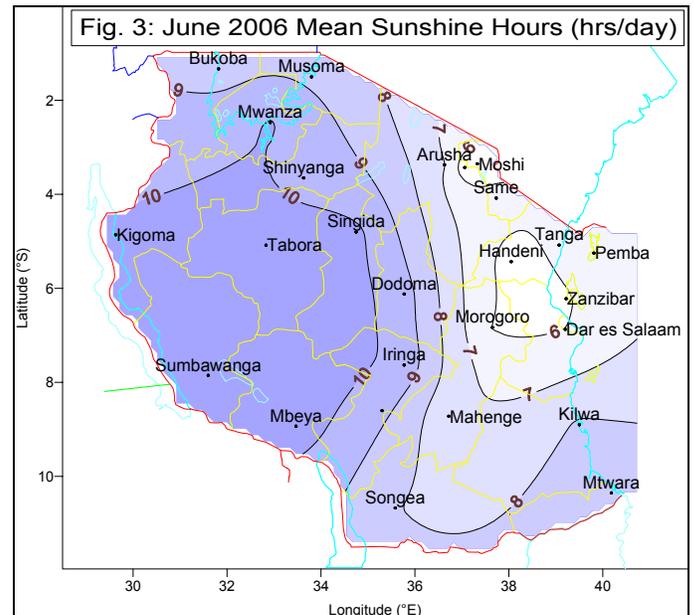


The highest maximum temperature recorded during the period was 30.2 °C at Kigoma town in the west, indicating a drop of 2.1 °C compared to the previous month.

The mean minimum air temperatures ranged from just below 8.0 °C to slightly above 22.0 °C (Fig. 2B). Generally, the country in June experienced cooler weather conditions than in May, with notable chilly weather conditions observed 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 6.9 °C and the observed lowest minimum temperature was 6.6 °C during the first dekad of the month.

**SUNSHINE HOURS**

Figure 3, indicates spatial distribution of mean sunshine hours across the country during June. Durations of mean bright sunshine hours ranged between about 7 and 10 hrs/day.

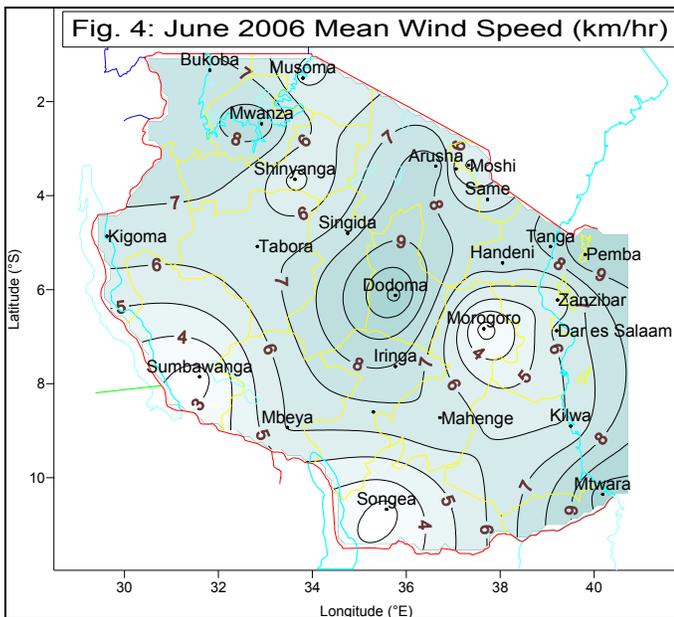


Over a large part of western sector that includes Kigoma, Rukwa, Tabora and Mbeya regions there were longer durations of about more than 10 daylight hours mainly due to a large decrease in cloudy activities over the areas. On the other hand, northeastern highlands and northern coast reported shorter durations of about 6 hours/day due to more

cloudy activities which were associated with more rainfall amounts as reported in Fig. 1.

**MEAN DAILY WIND SPEED**

Mean wind speed across the country ranged from just below 3 km/hr to just above 11 km/hr as depicted in Figure 4. The core of maximum speed of about 11 km/hr was located over central areas (Dodoma region), while areas surrounding Shinyanga, Sumbawanga, Songea, and Morogoro towns had calm conditions and winds of about 2 km/day strength.

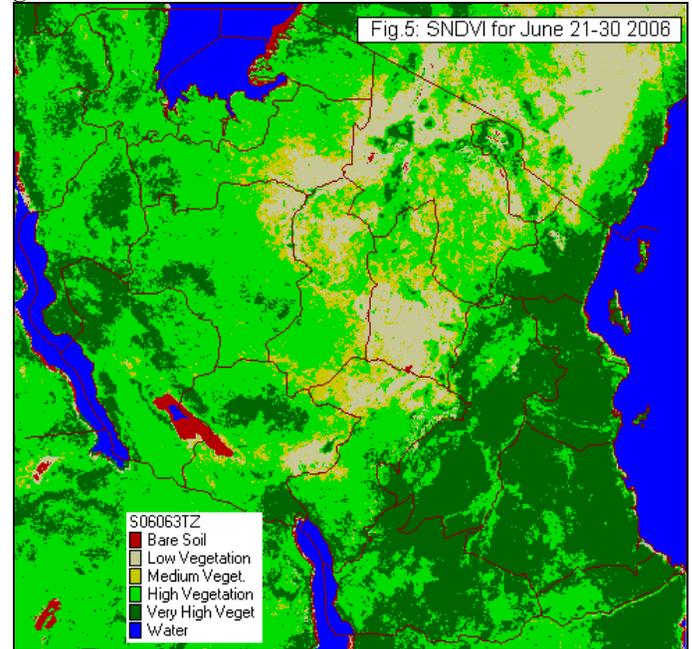


The winds strengthened mainly over central regions, thereby increasing prospects of occurrences of dust devils, wind erosion and high evaporation rates.

**SATELLITE INFORMATION**

Figure 5 depicts vegetation greenness as indicated by the Spot Satellite Normalized Difference Vegetation Index (SNDVI) sensor during June third dekad. Low and medium vegetation cover and greening during the period were depicted over eastern Mbeya, northern Iringa and Shinyanga regions, central regions (Dodoma and Singida), and northeastern highlands (Arusha, Manyara and Kilimanjaro regions). Areas over western, southern, and coastal belt depicted very high vegetation greening at the end of the month. Most parts of Lake Victoria Basin were dominated by high vegetation greening, although a

few pocket areas indicated very high vegetation greenness.



**AGROMETEOROLOGY**

During the dekad, the continued decline of soil moisture over the country was beneficial to matured crops (maize, sorghum/millet, beans and paddy) in the fields. Over most parts of southwestern highlands and southern regions harvesting of matured crops continued except for the higher altitude areas of southern Iringa region (Makete, Ludewa, Njombe and Mufindi districts) where maize has just reached full ripeness stage and in good state.

Over the bimodal sector maize was in good state at full ripeness stage. Harvesting activities have picked up, as reported from the districts of Mbulu and Babati districts in Manyara region; Bagamoyo, Kibaha and Kisarawe districts in Coast region and some parts of Lake Victoria Basin.

Sorghum in good to moderate state has reached full ripeness stage over central areas and parts of Shinyanga region where harvesting was reported.

Harvesting of paddy crop continued over several parts of the northern coast, northeastern highlands, southwestern highlands and Lake Victoria basin. Cassava in good state across the country was progressing well at various growth stages and ripened sweet potatoes were being harvested for town markets.

Overall, the 2006 *Masika* crop harvest over most of bimodal rainfall regime is anticipated to be above that of 2005 cropping season. On the other hand localized poor harvests have been reported over some parts of Dodoma and Singida regions, Meatu district in Shinyanga region, Kilolo and Iringa Rural districts in Iringa region.

Pasture and water for livestock/wildlife generally maintained a satisfactory level across the country.

Expected dry conditions in the country during July will favour drying of matured crops, crop harvesting and storage.

### 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 not be used to heat up homes to avoid asphyxiation from carbon monoxide.

### EXPECTED SYNOPTIC SITUATION DURING JULY 2006

The northern hemisphere systems (Siberian and Azores anticyclones) are expected to continue to

relax while over the southern hemisphere, the Mascarene and St. Helena anticyclones are expected to intensify and hence allowing the East African ridge to dominate over most parts of the country. The ITCZ will continue to shift further to the north. Over the northeastern sector of the country the near equatorial trough is expected to be active and deep. The wind patterns over the coast will be more of southeasterly to southerly becoming southwesterly on reaching the East African coast.

### EXPECTED WEATHER SITUATION DURING JULY 2006

Lake Victoria basin (Kagera, Mwanza and Mara regions) areas will experience partly cloudy conditions with occasional thunderstorms over few areas and sunny periods. Southwestern highlands (Iringa, Mbeya and Rukwa regions), southern (Ruvuma region) and southern coast (Mtwara and Lindi regions) are expected to experience partly cloudy conditions with chilly weather conditions during nights and morning hours breaking into sunny periods in the afternoons. Northeastern highlands (Arusha, Kilimanjaro and Manyara regions) will experience partly cloudy conditions, and cold nights and mornings with light rains mainly over high grounds and sunny periods. The northern coast (Coast, Dar es Salaam and Tanga regions, and Pemba and Zanzibar Islands) will feature partly cloudy conditions with occasions of morning light rains over few areas and sunny periods. Central areas (Dodoma and Singida regions) and northern parts of Morogoro region will feature partly cloudy conditions with chilly nights. Western parts of the country (Kigoma and Tabora areas) will feature partly cloudy conditions and sunny periods.

Prepared by

TANZANIA METEOROLOGICAL AGENCY

3<sup>rd</sup>, 4<sup>th</sup> & 10<sup>th</sup> Floors - Ubungo Plaza - Morogoro Road.

P.O. Box 3056 Tel. 255 -(0) 22 - 2460706 - 8 ; Fax: 255 - (0) 22 - 2460718 E-mail: (1) [met@meteo.go.tz](mailto:met@meteo.go.tz) (2) [agromet\\_tz@meteo.go.tz](mailto:agromet_tz@meteo.go.tz)

Dar-es-Salaam UNITED REPUBLIC OF TANZANIA