TANZANIA METEOROLOGICAL AGENCY

DEKADAL WEATHER REVIEW

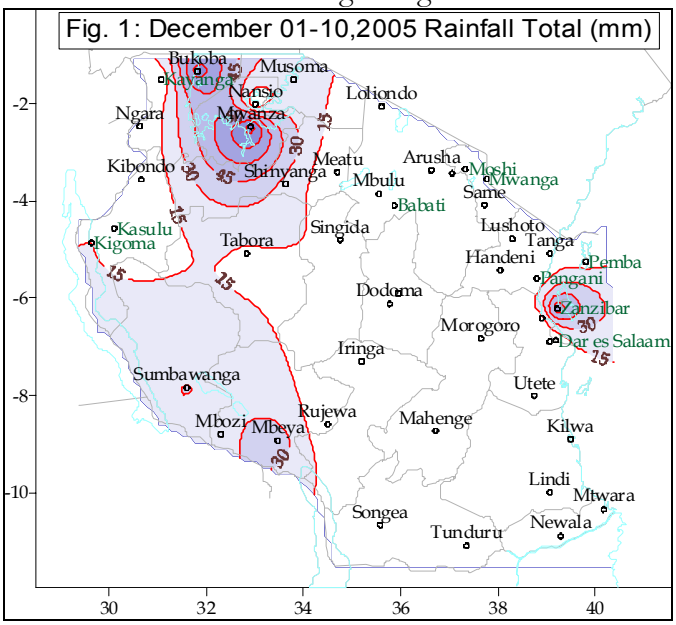
No. 10 2005/06 Cropping Season December 01 - 10, 2005

SYNOPTIC SITUATION

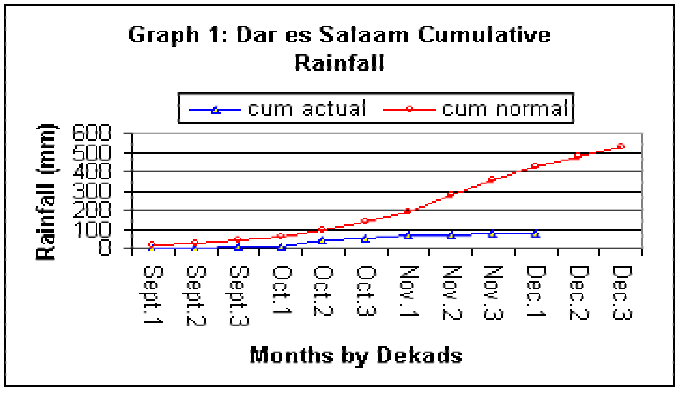
During the period 01st –10th December, Azores and Arabian anticyclones were intense. The St. Helena anticyclone was relatively strong while the Mascarene anticyclone continued to weaken gradually southeastward. The position of the Inter-Tropical Convergence Zone (ITCZ) remained over Tanzania although it looked to be more active over western Indian Ocean than inland. The Northeasterly wind flow from the northwestern Indian Ocean prevailed, but with a more continental track and less moisture contents. The convergence of northwesterly to westerly wind flows from the Congo basin and northeasterly wind flows from the northern Indian Ocean over western part of the country and Lake Victoria basin (LVB) were evident and associated with rainfall over those areas during the dekad. The weak convergence of weak easterly wind flows from western Indian Ocean and north-easterlies from the northern Indian Ocean over the northern coast contributed into rainfall activities observed over Zanzibar during the dekad.

RAINFALL SUMMARY

During the period, more rainfall activities (cumulative rainfall greater than 15 mm) were reported over areas of the LVB, western, and Zanzibar Island (Fig.1). The highest total rainfall recorded was 98.4 mm for the dekad at Mwanza Airport. Elsewhere, dry conditions with cumulative rainfall between 0 and 15 mm were observed. The decrease in rainfall activities over areas with a bimodal rainfall pattern (northern Kigoma, western areas of Kagera region, northeastern highlands and northern coast) have worsened the observed prolonged dry spell conditions over some areas marking a failure of *Vuli* season over the areas. For example over the northern coast, Dar es Salaam has been experiencing below normal rainfall since the beginning of the season.



Graph 1 compares the current cumulative rainfall to the long-term mean for the period from September 1st dekad to-date at Mwalimu Julius K. Nyerere International Airport. Rainfall over this area indicated shortfall of about 67 mm during the past 10-days and about 331 mm since September.



The observed rainfall activities over the western sector of the country mark a delayed onset of the seasonal rains (*mvua za Mwaka*) in those areas.

IMPACT ASSESSMENT

Agrometeorological

Soil moisture replenishment occurred over LVB and western region. However, soil moisture deficits continued over many areas of the northern coast, northeastern highlands, central and southern sector of the country due to little rainfall activities observed during the period. Such moisture deficits caused partial wilting of crops mainly maize and beans over districts of Pangani and Lushoto (Tanga region), Tarime (Mara region) and Mwanga (Kilimanjaro region).

Crops stages over these areas ranged between tasseling and wax ripeness for maize over Pangani, Mwanga and Tarime and vegetative to ripeness for beans. Maize over Lushoto was at vegetative stage. As for cassava, the crop was at various stages and in moderate state. Over the unimodal regime (Central, Western, Southern and Southwestern highlands) most farmers had just completed land preparation and they are therefore, advised to plant immediately when it rains.

Hydrometeorological

Low water levels in rivers and lakes were generally experienced during the period. Water for domestic and industrial purposes should be used sparingly.

Environmental

Warm/hot conditions are being experienced in many parts of the country.

EXPECTED SYNOPTIC SYSTEMS DURING DECEMBER 11 – 20, 2005

The Arabian and Azores anticyclones are expected to remain strong over the northern hemisphere while over the southern hemisphere the Mascarene anticyclone is expected to continue weakening southeastward. The St. Helena anticyclone is expected to remain intense during the dekad. The position of the ITCZ is expected to shift further south over southern Tanzania but more to the west, while the meridional arm of ITCZ is expected to remain active. Westerly wind flows from the Congo basin are expected to persist. The North East wind flows from the northwestern India Ocean are expected to strengthen and converge over western and southwestern Tanzania with prevailing westerly flow from Congo basin. Hence, rainfall activities over southwestern highlands and southern regions are expected to increase.

EXPECTED WEATHER DURING DECEMBER 11 – 20, 2005

The LVB, western parts, southwestern highlands and southern region are expected to feature cloudy conditions with showers and thunderstorms over most areas and sunny intervals. The northeastern highlands, hinterlands of northern Morogoro and central parts are expected to feature partly cloudy conditions and sunny periods. Northern coast (Dar es Salaam, Tanga, Zanzibar and Pemba Islands) and southern coast are expected to experience partly cloudy conditions with showers over few areas and sunny periods.

Prepared by
TANZANIA METEOROLOGICAL AGENCY
3rd , 4th & 10 th Floors - Ubungo Plaza Ltd – Morogoro Road.
P.O. Box 3056 Tel. 255 -(0) 22 – 2460706-8 ; Fax: 255 - (0) 22 – 2460718 E-mail: (1) met@meteo.go.tz (2) agromet_tz@meteo.go.tz
Dar-es-Salaam UNITED REPUBLIC OF TANZANIA