TANZANIA METEOROLOGICAL AGENCY

DEKADAL WEATHER REVIEW

No. 14 2005/06 Cropping Season January 11 - 20, 2006

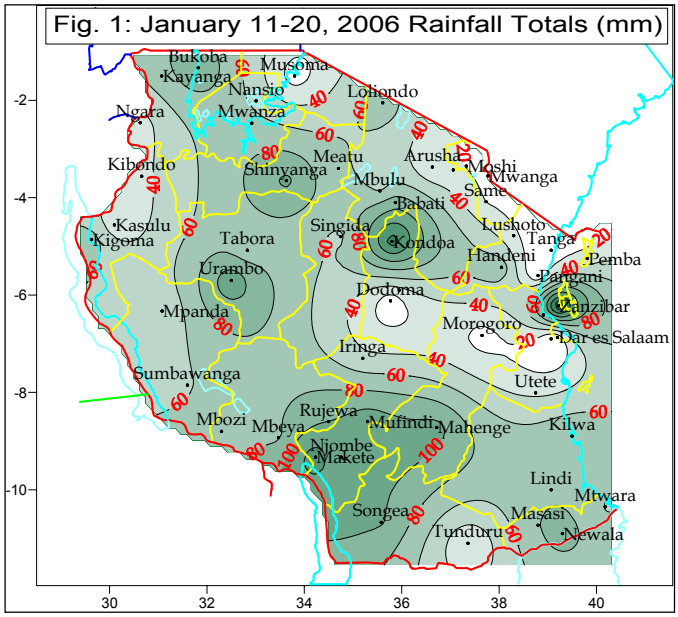
SYNOPTIC SITUATION

During the period 11–20th January, the Azores and Siberian anticyclones over northern hemisphere intensified with axis of the Arabian ridge touching the northeastern highlands areas. The zonal component of the ITCZ was prominent to the south of the Equator towards the end of the dekad. The meridional component of the ITCZ to the west was active enough thus oscillating to the western part of the country down to the southwestern highlands. St. Helena and the Mascarene anticyclones continued to be relatively weak for the entire period of the dekad as they were eroded by fronts, which were pronounced on the southern tip of Africa. The wind regime had changed slightly. The northeasterly wind flow to the southern coast became northerly towards the end of the dekad. The convergence of northwesterly wind flow from the Congo basin and northeasterly wind flow from the western part of Indian Ocean was evident and the line of convergence was maintained over the Lake Victoria Basin (LVB), western and southwestern highlands resulting into rainfall activities over those areas.

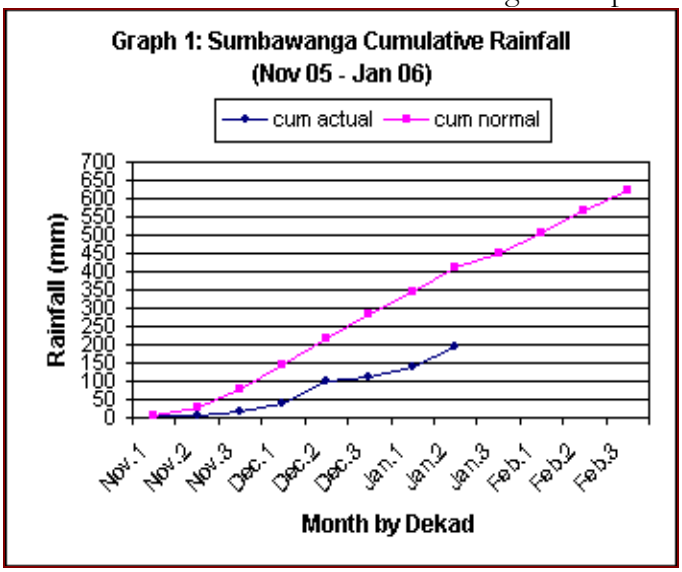
RAINFALL SUMMARY

During the period, there was an increase in rainfall activity as indicated in Fig. 1, for both amounts and areal coverage of rainfall observed across the country. Substantial amount of rainfall (at least 100 mm) was reported over areas of Shinyanga, Urambo, Kondoa, Zanzibar and southwestern highlands including Songea district. The highest total rainfall recorded for the dekad was 183.8 mm over Zanzibar Airport in the northern coast. Pockets of little rainfall (less than 20 mm) are observed over some areas in the Coast, Morogoro, Dodoma, Tanga, Kilimanjaro and Mara regions (Fig.1). However, in other areas of the southwestern highlands, central and southern coast where the rains were more desirable, seasonal rains (*Mvua za Mwaka*) have been below normal since November 05.

Fig. 1: January 11-20, 2006 Rainfall Totals (mm)



Graph 1 compares the current cumulative rainfall to the long-term mean for the period from November 1st dekad to-date at Sumbawanga Airport.



Seasonal cumulative rainfall over the area indicates a shortfall of about 215 mm since November 05.

IMPACT ASSESSMENT

Agrometeorological

The dekad experienced favourable soil moisture replenishments across the country. This condition reduced dry spell that had threatened crop activities including planting and subsequent crop growth and development, as was expected during the period for the unimodal sector (central, southwestern highlands, southern and southern coast) of the country. Over unimodal rainfall regime, the field crops were at various stages of growth ranging from emergence to vegetative stages. The northern sector of the regime (eg. districts of Kibondo and Kasulu in Kigoma region, Mpanda in Rukwa region and Urambo in Tabora region) where the season started early, maize crop was reported at ninth leaf, while to the southwestern highlands and southern areas (eg. Makete, Ludewa and Mufindi districts in Iringa region), the crops were at emergence and vegetative stages. Maize crop over districts of Njombe, Ludewa, Makete and Mufindi in Iringa region, Tunduru and Namtumbo in Ruvuma region and Newala in Mtwara region was at moderate state, in spite of the outbreak of armyworms.

Off-*vuli* rains over the bimodal sector of the country were not enough for crops that had affected by prolonged soil moisture stress to recover. However a few farmers in the districts of Loliondo in Arusha region, Babati and Mbulu in Manyara region, attempted to plant maize during the dekad. On the other hand, the observed soil moisture improvement is likely to improve pasture conditions.

Hydrometeorological

Water levels in rivers, lakes and dams remained low during the period. Water for domestic and industrial purposes should be used sparingly.

Environmental

Warm/hot conditions and high evaporation rates were experienced in many parts of the country.

EXPECTED SYNOPTIC SYSTEMS DURING JANUARY 21 – 31, 2006

The position of the Inter-Tropical Convergence Zone (ITCZ) is expected to fluctuate south north gradually during this dekad. The southern hemisphere systems, the Mascarene and St. Helena anticyclones are expected to continue weakening southeastward. The Siberian and Azores anticyclones are expected to remain intense over the northern hemisphere thus keeping the position of the ITCZ to the south. Westerly to northwesterly wind flow from the Congo basin is expected to persist over the western areas, hence leading to an increase in rainfall activities over Western (Kigoma), south western highlands and southern regions.

EXPECTED WEATHER DURING JANUARY 21 – 31, 2006

The LVB mainly over Kagera region, western parts of the country (Kigoma region), central, southwestern highlands, southern region and southern coast are expected to feature partly cloudy conditions with showers and thunderstorms over few areas and sunny periods. Northeastern highlands will feature partly cloudy conditions with predominant sunny periods. Northern coast are expected to experience partly cloudy conditions with early morning light rains over few areas and sunny periods.

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