



# TANZANIA METEOROLOGICAL AGENCY



## DEKADAL WEATHER REVIEW

No. 14

2006/07 Cropping Season

January 11-20, 2007

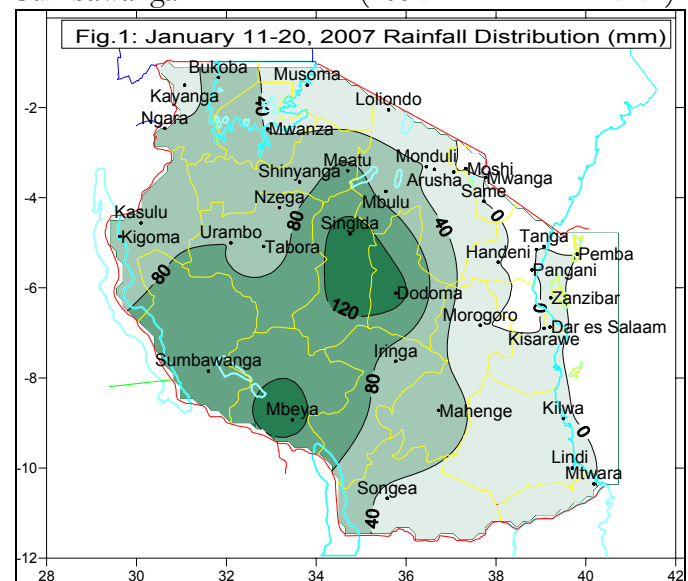
### SYNOPTIC SITUATION

The northern hemisphere systems, the Azores and Arabian anticyclones continued to strengthen, hence maintaining the position of the Inter-Tropical Convergence Zone (ITCZ) to the south. The southern hemisphere systems, the St. Helena, Mascarene anticyclones and East African ridge relaxed, thus allowed the position of the Zonal Arm of ITCZ to be located at about latitude  $10^{\circ}$  S. The north easterly flow dominated over northern coast and northeasterly highlands, while the northerly flow was dominant over southern areas. The variable air flow observed over southwestern highlands, western areas and Lake Victoria basin allowed moist air from Congo basin to converge caused increased rainfall activities over those areas. The cyclonic flow, which was seated over the Mozambique Channel, caused moist air flow from Congo basin, to converge with north easterlies resulting in an increase of rainfall activities over the western side of Lake Victoria basin, western areas, central regions and southwestern highlands. The anti-cyclonic flow, centered over the northwestern Indian Ocean, intensified; allowing the northeasterly flow to dominate over northern coast, northeastern highlands, together with the northerly flow over southern areas, caused reduced rainfall activities over those areas.

### RAINFALL SUMMARY

During the period, a marked decrease in rainfall activities was observed over the areas in the eastern sector of the country where the ten-day rainfall amounts reported was less than 40 mm (Fig. 1). Observed decrease in rainfall activities was perceived to be normal over areas with a bimodal rainfall pattern (northern coast, Islands of Zanzibar and Pemba, northeastern highlands and Lake Victoria basin), as Vuli rains normally cease in January. On the

other hand, over unimodal rainfall regime areas (southern and southern coastal regions) where little amounts of rainfall were reported, such condition led to a dry spell. Dekadal total rainfall amounts that exceeded 100 mm were recorded at Singida (141.8 mm), Dodoma (138.9 mm), Mbeya (130.4 mm), and Sumbawanga (105.2 mm).



### IMPACT ASSESSMENT

#### Agrometeorological

Soil moisture was still adequate and continued to benefit crops in the fields over much of the unimodal rainfall regime areas; the central, western, southwestern highlands, southern and southern coast where most crops were at vegetative stage and in good state. A few pocket areas experienced inadequate soil moisture levels as in parts of Lindi and Mtwara regions. As for bimodal regime areas including parts of coast, northern coast, northeastern highlands and the Isles of Zanzibar and Pemba experienced a soil moisture drop for the period mainly due to turning over of the season towards its end. With this soil moisture status most Vuli crops

mainly maize was between tasseling and ripeness growth stages, generally in good state. Over Lake Victoria basin, beans crop was at ripening stage, although the yield is anticipated to be low due to excessive soil moisture that was experienced by the crop during vegetative and pod filling stages. Paddy over the central and western areas was at a transplanting stage while cassava across the country was at various growth stages and in good state.

Pasture conditions and water availability for livestock across the country was very good.

### Hydrometeorological

Rains have boosted water levels in rivers, lakes and dams over most areas in the country and eased off the acute load shedding experienced in the country in second half of 2006.

### Environmental

Coastal areas were hot and humid. The rest of the country, temperatures were warm and comfortable, with less windy conditions over some areas.

### EXPECTED SYNOPTIC SYSTEMS DURING JANUARY 21 – 31, 2007

During the period the cyclonic flow will continue to persist over the south Indian Ocean, the anti-cyclonic flow will be a dominant feature over the northwestern Indian Ocean in the Mozambique Channel. The northeasterly component over northern coast will become northwesterly component over southern areas.

The Siberian and Azores anticyclones, and Arabian ridge and over the northern hemisphere will remain relatively strong, hence maintaining the position of meridional and Zonal Arms of the I T C Z. The anti-cyclonic flow over the northwestern Indian Ocean will dominate, thereby influencing diffluent flow pattern (dry condition) over northern coast, and northeastern highlands. St. Helena and Mascarene anticyclones and the East African ridge over the southern hemisphere will continue to relax. The northwesterly flow will dominate over southern, western and central areas.

### EXPECTED WEATHER DURING JANUARY 21 – 31, 2007

The Lake Victoria basin (Kagera, Mwanza, Mara, and Shinyanga regions), western (Kigoma and Tabora regions), southwestern highlands (Rukwa, Mbeya, and Iringa regions), southern region (Ruvuma region), and central (Singida and Dodoma regions) are expected to experience partly cloudy conditions with thundershowers over few areas and sunny periods. Southern coast (Pwani, Lindi and Mtwara regions), northeastern highlands (Arusha, Manyara, and Kilimanjao regions), northern coast (Tanga and Dar es Salaam regions, north of Morogoro region, and Islands of Zanzibar and Pemba) are expected to feature partly cloudy conditions with sunny periods.

Prepared by

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