# TANZANIA METEOROLOGICAL AGENCY

# DEKADAL WEATHER REVIEW

**No: 19 2012/13 Cropping Season** **March 1- 10, 2013**

**HIGHLIGHTS**

- **Crop growth continued well mainly over the unimodal sector with maize, beans, sorghum and cassava crops reaching advanced stages and in good state, except for the late planted paddy at earliest stage as observed over most parts of the country.**
- **Pastures and water availability for livestock and wildlife over much of the country was generally good.**

## SYNOPTIC SUMMARY

During the first dekad of March, 2013, the southern hemisphere high pressure cells (anticyclones) were noted to observe gradual intensification. On the other hand, Azores anticyclone and Siberian high over the northern hemisphere were noted to gradually relaxing with time. The Meridional arm of the Inter-Tropical Convergence Zone (ITCZ) was slightly located in the western side of the country while the zonal arm moved up to the central sector of the country from its extreme southern hemisphere position. These settings caused convergence of the north-easterlies and south-easterlies over most parts of the country. Sustained slight warm and cool sea surface temperature (SST) patterns were observed over the eastern Indian Ocean and central Indian Ocean respectively, while warm to neutral conditions was observed over western Indian Ocean. The overland ridge from Southern Africa was generally relaxed allowing penetration of the easterlies towards the Tanzania coast thus rendering them showers over many areas of the Country.

## RAINFALL SUMMARY

During the first dekade of March, 2013, moderate to substantial rains were received over several parts of the country mainly the unimodal sector and the northern coast including the Islands of Unguja and Pemba with dakadal total amounts to some parts exceeding 100 mm. The highest rainfall amount was recorded at Mbozi 200.3 mm, followed by Zanzibar Airport 193.3 mm, Mahenge 188.6 mm, Tumbi Agromet 133.6 mm, Babati 126.1 mm, Kilwa Masoko 120.0 mm, Songea 114.8 mm, Igeri 95.4 mm, Shinyanga 94.1 mm, Bukoba 93.2mm,Tabora 90.2 mm, Tanga 86.7 mm, and Dar es salaam (JNIA) 83.2 mm, Tukuyu 82.6 mm, Uyole 76.5 mm, Kibondo 73.1 mm, Mbeya 69.6 mm, Singida 68.6 mm, Pemba 68.4 mm, and Kigoma 67.7 mm. Remaining areas mainly over central, northeastern highlands and the northern coast received rainfall less than 50 mm for the period as shown in Figure 1a.

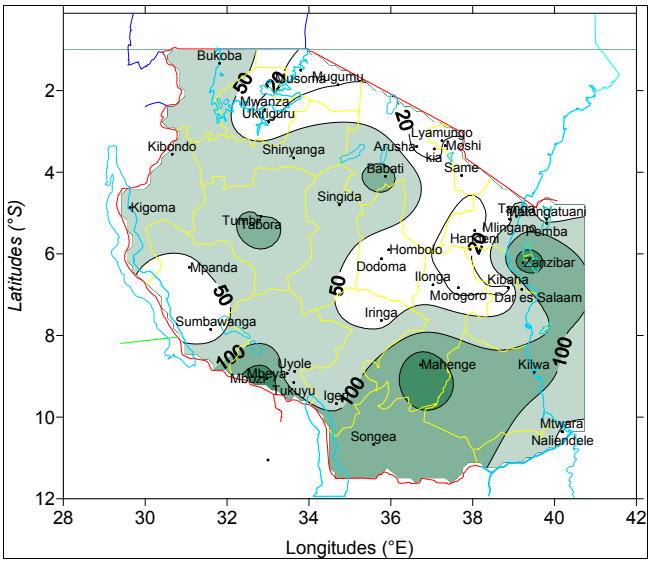


**Figure 1a:** March 1-10, 2013 Rainfall distribution (mm)

The Geospatial Water Requirement Satisfaction Index (GeoWRSI) model with inputs from Satellite Rainfall Estimates (RFE) merged with gauge data from Tanzania rainfall stations network also indicates nearly similar pattern of the improved rainfall performance during the dekad whereby most parts across the country received rainfall greater than 50% of the long term average as shown in Figure 1b. More rains (exceeding 200% of long term average) were recorded oer northen coast (Tanga, Coast, Dar es Salaam, northern Lindi, southern Morogoro, Islands of Unguja and Pemba, and Shinyanga regions.

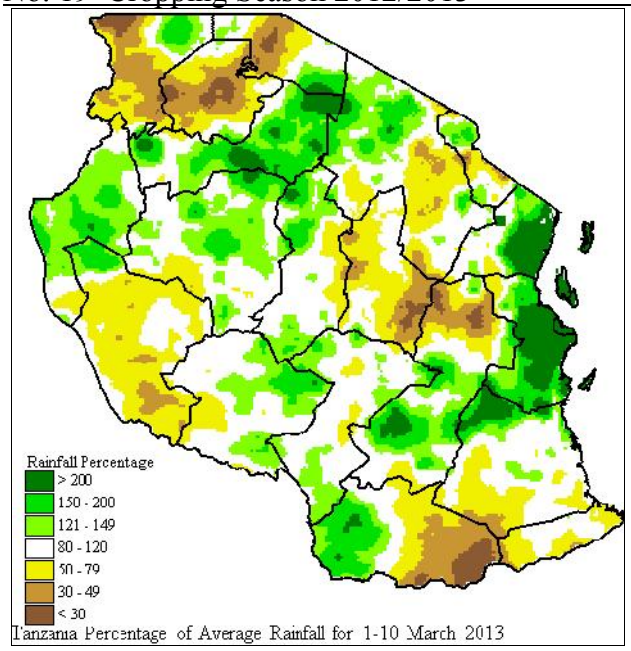


**Figure 1b:** March 1-10, 2013 Percentage of average rainfall from GeoWRSI

## IMPACT ASSESSMENT

### Agrometeorological and Crop Summary

Crop growth continued well mainly over the unimodal sector with maize, beans, sorghum and cassava crops reaching advanced stages and in good state. Soil moisture levels obtained over most parts of unimodal sector during the period favored crops over these areas at stages ranging from advanced vegetative to near maturity stages with generally good state, especially for maize over Sumbawanga, Mpanda Tunduru and Newala in the southwestern highlands, southern coast and southern regions. However, over bimodal sector the low to moderate soil moisture supply obtained during the period was sufficient for land preparation as well as planting activities and crop establishments for *Masika* long rain season that covers Lake Victoria basin, northeastern highlands and the northern coast.
Pastures and water availability for livestock and wildlife over much of the country was generally good.

### Hydrological Summary

Water levels in dams and river-flow have been maintained over unimodal sector due to moderate to substantial rains experienced over several parts of the sector during the dekad.

### Environmental Summary

Temperatures remained generally high over much of the country as well as warm to humid air observed mainly over the coastal belt that occasionally caused discomforts.

## EXPECTED SYNOPTIC SYSTEMS DURING MARCH 11-20, 2013

During this period, the southern pressure systems particularly the Mascarene are expected to continue to intensify while their counterparts to the north are simultaneously expected to relax considerably. The ITCZ is expected to continue moving equator ward from its current position in the southern hemisphere. This movement is expected to enhance convection and thus enhanced rains over most parts of the country.

## EXPECTED WEARHER DURING MARCH 11-20, 2013

Lake Victoria Basin (Kagera, Mwanza, Mara, Geita, Simiyu and Shinyanga regions), northeastern highlands (Kilimanjaro, Arusha and Manyara regions), northern coast (Dar es Salaam, Morogoro and Tanga regions, the Isles of Unguja and Pemba), central areas (Dodoma and Singida regions), and southern region (Ruvuma region) are expected to feature normal rains.
Western regions (Kigoma and Tabora regions), south-western highlands (Rukwa, Iringa, Njombe and Mbeya regions), and southern coast (Mtwara and Lindi regions) are expected to experience normal to above normal rains.

## AGROMETEOROLOGICAL OUTLOOK DURING MARCH 11-20, 2013

During the second dekad of March, 2013, the expected above normal rains may lead to excessive soil moisture levels thus causing negative impacts to crops and crop managements.

*Prepared by*
TANZANIA METEOROLOGICAL AGENCY
3rd, 4th & 10 th 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 (2) agromet@meteo.go.tz*
Dar es Salaam UNITED REPUBLIC OF TANZANIA