



# TANZANIA METEOROLOGICAL AGENCY



## DEKADAL WEATHER REVIEW

No: 16 2012/13 Cropping Season

February 1- 10, 2013

### HIGHLIGHTS

- Crops including maize, beans, sorghum and cassava observed mainly over unimodal sector progressing well at advanced growth stages despite inadequate levels of soil moisture experienced during the dekad, however, a normal feature over bimodal sector for the period
- Pastures and water availability for livestock and wildlife over much of the country was hopeful

### SYNOPTIC SUMMARY

During the first dekad of February, 2013, the southern hemisphere high pressure cells (anticyclones) were noted to observe gradual relaxation. On the other hand, Azores anticyclone and Siberian high over the northern hemisphere were noted to significantly intensify with time. As a result, the Meridional arm of the Inter-Tropical Convergence Zone (ITCZ) was slightly located in the extreme western site of the country while the zonal arm of the ITCZ moved south wards to extreme southern sector of the country. These settings caused penetration of the north-easterlies over most parts of the country, thus influenced little rainfall over most parts of the country (Lake Victoria basin, Western regions, Central. Sustained warm and cool sea surface temperature (SST) pattern was 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 coastal line thus rendering them showers over some parts of the coastal regions.

### RAINFALL SUMMARY

During the first dekad of February, 2013, light rains were recorded over some areas of the country particularly over the Lake Victoria basin, western, central, and northeastern highland areas of the country, while over parts of the coastal belt mainly dry, as shown in Figures 1a and 1b. The highest rainfall amount for the period was recorded at Arusha Airport 46.0 mm, followed by

Mpanda 45.6 mm, Igeri 37.8 mm, Mbeya 37.6 mm, Bukoba 36.8 mm, Mbozi 26.3 mm, Tukuyu 21.0 mm, Iringa 20.5 mm, Mwanza 20.3 mm, Hombolo 17.3 mm, Ukiriguru 17.0 mm, Kigoma 16.7 mm, Amani malaria 16.6 mm, Sumbawanga 15.3 mm, Shinyanga 13.3 mm, Songea 12.9 mm and Same 10.0 mm. Remaining areas mainly over the coastal belt, received rainfall less than 10 mm for the period as shown in Figure 1a below.

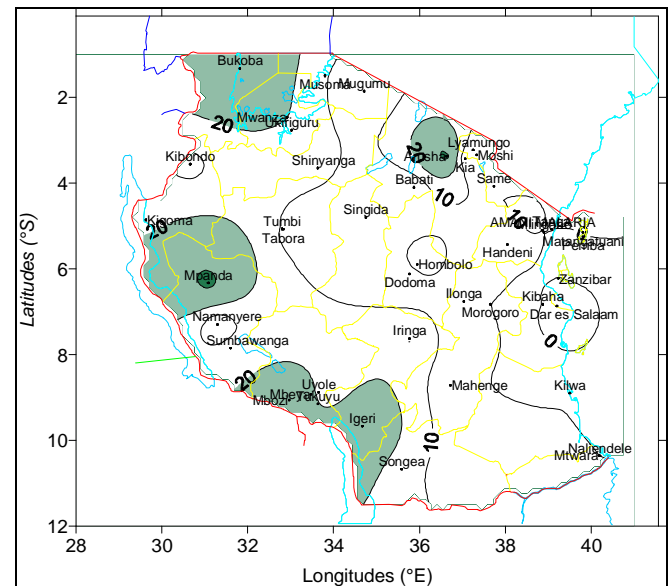
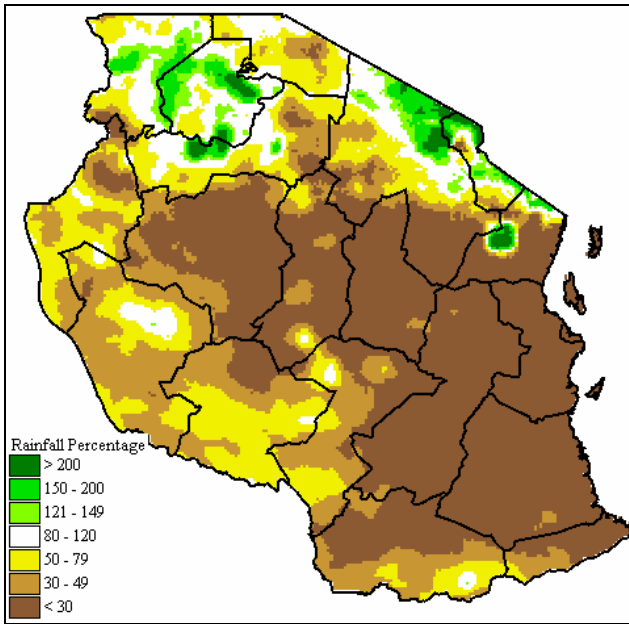


Figure 1a: February 1-10, 2013 Rainfall distribution (mm)

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 similar pattern of the far decreased rainfall performance during the dekad whereby most parts across the country mainly central, southern and coastal belt areas received rainfall less than 30% of the long term average as shown in Figure 1b below.



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

## IMPACT ASSESSMENT

### Agrometeorological and Crop Summary

Crops including maize, beans, sorghum and cassava observed mainly over unimodal sector were progressing well at advanced growth stages despite inadequate levels of soil moisture experienced during the dekad, however, it's a normal feature over bimodal sector during the period. For parts of Lake Victoria basin crops particularly maize and beans were observed at ripeness to harvesting stage and in generally good state, though some difference marked on some crops' state resulted from seasonally decreased soil moisture supply experienced mainly over parts of northeastern highlands particularly Lyamungu, Same and Moshi in Kilimanjaro region, also Handeni in Tanga region of the northern coast where farmers have switched to early preparation for the next *Masika* season that normally starts in the middle of March. However, with the inadequate soil moisture obtained over the unimodal sector most crops over these areas had retained their good state at advanced to maturity stages as were observed particularly over Sumbawanga, Mpanda Tunduru and Newala in the southwestern and southern regions.

Pastures and water availability for livestock and wildlife over much of the country was hopeful.

### Hydrological Summary

Water levels in dams and river-flow have increased mainly over unimodal sector resulted from moderate to substantial rains experienced over some 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 areas that occasionally caused discomfort.

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

During this period, the southern pressure systems particularly the Mascarene are expected to maintain relatively low intensity, while their counterpart to the north are expected to continue intensifying. Thus, is expected to maintain the ITCZ over unimodal areas of the country including; western, south-western highlands, southern regions, southern coast regions and central regions of the country.

## EXPECTED WEATHER DURING FEBRUARY 11-20, 2013

Lake Victoria basin (Kagera, Mwanza, Mara, Geita, Simiyu and Shinyanga regions): Mainly dry. north-eastern highlands (Kilimanjaro, Arusha and Manyara regions): Mainly dry. Northern coast (Dar es Salaam, Morogoro and Tanga regions, the Isles of Zanzibar and Pemba): Mainly dry. Western regions (Kigoma and Tabora regions): Normal rains. Central areas (Dodoma and Singida regions) Normal rains. Southwestern highlands (Rukwa, Iringa and Mbeya regions): Normal to above normal rains. Southern coast (Mtwara and Lindi regions): Normal rains. Southern region (Ruvuma region): Normal to above normal rains.

## AGRO METEOROLOGICAL OUTLOOK DURING FEBRUARY 11-20, 2013

During the dekad, growing crops over the unimodal sector of the country will benefit from the expected normal to above normal soil moisture supply, while the lower soil moisture levels expected over much of the bimodal sector is a possible risk to the late maturing crops in the region

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