TANZANIA METEOROLOGICAL AGENCY

DEKADAL WEATHER REVIEW

No: 20 Cropping Season 2012/13 **March 11- 20, 2013**

HIGHLIGHTS

- **Favorable soil moisture conditions during the period enhanced crop growth and development over unimodal areas, while planting and emergence of crops were pronounced over the bimodal regions**
- **Pastures and water availability for livestock and wildlife over much of the country was generally good**

SYNOPTIC SUMMARY

During the second dekad of March, 2013, the southern hemisphere high pressure cells (anticyclones) were noted to observe gradual intensification. On the other hand, Azores and Siberian anticyclones over the northern hemisphere were noted to gradually relaxing with time. As a result, the Inter-Tropical Convergence Zone (ITCZ) was over the country from its extreme southern hemisphere position. These settings caused convergence of the northeasterlies and southeasterlies over most parts of the country. Sustained slightly warm and cool sea surface temperatures (SSTs) 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 coast.

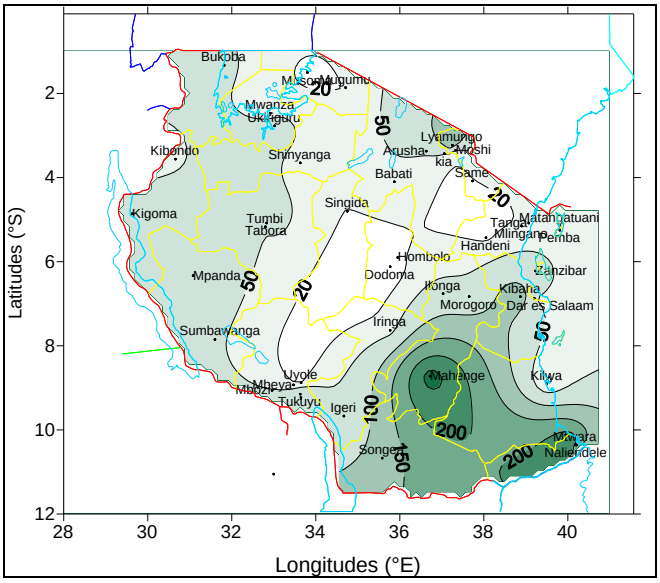

Figure 1a: March 11-20, 2013 Rainfall distribution (mm)

RAINFALL SUMMARY

During the under review, substantial amounts exceeding 100 mm were recorded over southern parts of the country particularly the unimodal sector. The highest total rainfall amount for the period was recorded at Mahenge Met. Station 273.6 mm, followed by Mtwara 257.7 mm, Naliendele 149.0 mm, Lyamungu 145.5 mm, Kibaha 132.7 mm, Songea 120.8 mm, and Tukuyu 104.9 mm. the western, Lake Victoria basin and few areas in the northeastern highlands reported rainfall exceeding 50 mm as indicated in Figure 1a. Remaining areas mainly over central, northeastern highlands and the northern coast received rainfall less than 20 mm for the period, as shown in Figure 1a.

The rainfall performance indicates that the southern coast and southern Morogoro recorded substantial rainfall amounts exceeding 100 mm above long-term average as indicated in Figure 1b.

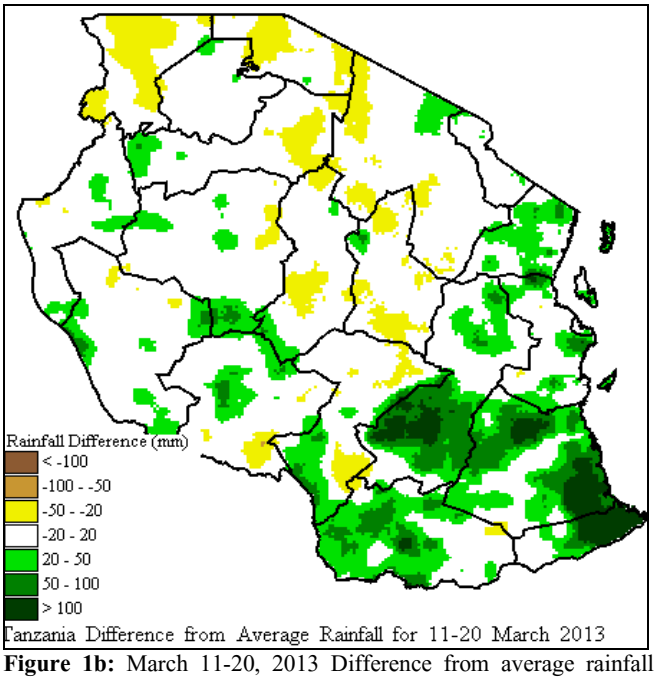

Figure 1b: March 11-20, 2013 Difference from average rainfall depicted by GeoWRSI crop model.

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 rainfall performance during the dekad, whereby most parts across the country received rainfall ranging from 20 to 100 mm above long term average, except for central, northeastern highlands and Lake Victoria basin as shown in Figure 1b.

IMPACT ASSESSMENT

Agrometeorological and Crop Summary

Favorable soil moisture conditions were observed during the dekad enhancing crop growth and development that continued well mainly over unimodal sector where maize, beans, sorghum and paddy crops have reached advanced stages and in good state. Most parts of the sector such as Sumbawanga, Mpanda, Tunduru and Newala during the period reported crops at stages ranging from advanced vegetative to near maturity with generally good state, especially for maize over southwestern highlands, southern coast and southern regions. However, over bimodal sector the generally low soil moisture supply obtained during the period was relatively conducive to field activities carried out such as; finalizing land preparation, planting and even crop establishments for the *Masika or* long rain season that extends to Lake Victoria basin, northeastern highlands and the northern coast. Late planting was reported over some parts in Tanga region including Korogwe district.

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 discharges have been boosted mainly over unimodal sector due to moderate to substantial rains experienced over 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 some discomfort.

EXPECTED SYNOPTIC SYSTEMS DURING MARCH 21- 31, 2013

During this period, the southern pressure systems particularly the Mascarene are expected to intensify, while their counterparts to the north are expected to relax. The ITCZ is expected to continue moving northward from its current position in the southern hemisphere, shifting from unimodal areas of the country (western, southwestern highlands, southern regions, southern coast regions and central regions of the country) to bimodal areas of the country (Lake Victoria basin, northeastern highlands and northern coast regions). This movement is expected to enhance convection over most parts of the country, thus more rains. However, the development of warm SST over the Somali coast is expected to reduce the moisture contribution by the low level northeasterly winds to the ITCZ, thus, reducing the rainfall intensity during this period, especially over the central, northeastern highlands and northern coast regions.

EXPECTED WEATHER DURING MARCH 21-31, 2013

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

AGROMETEOROLOGICAL OUTLOOK DURING MARCH 21-31, 2013

During the third dekad of March, 2013, the expected normal to above normal rains may lead to excessive soil moisture levels that might cause negative impacts to crops and crop management including poor grain filling, leaching and water logging.

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