TANZANIA METEOROLOGICAL AGENCY

DEKADAL WEATHER REVIEW

No: 13. 2012/13 Cropping Season

January 1- 10, 2013

HIGHLIGHTS

Late grown crops over bimodal areas will benefit from the expected normal soil moisture supply during coming dekad. However, the above normal levels expected over parts of unimodal areas are likely to benefit crops over much of unimodal areas except over southern coast where excessive soil moisture might hamper the crops mainly over low lying areas.

SYNOPTIC SUMMARY

During the first dekad of January, 2013, the southern hemisphere high pressure cells (anticyclones) were noted to observe gradual relaxation. On the other hand, Azores anticyclone and Siberian high and the associated Arabian ridging 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 west site of the country, while the zonal arm of the ITCZ moved southwards to southern sector of the country. These settings caused penetration of the north-easterlies over some parts of the country, thus influenced rainfall over most parts of the country (Lake Victoria basin, western regions, north-eastern highlands and northern coast regions). 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.

RAINFALL SUMMARY

During the fisrt dekad of January, 2013, significant rains were recorded over most parts of the southern coast and southern regions, parts of Lake Victoria Basin, northern Iringa and western Manyara as indicated in Figs 1a and 1b. The highest rainfall amount for the period was recorded at Mtwara station 251.6 mm, followed by Naliendele 233.9 mm, Songea 132.8 mm, Kilwa 129.1 mm, Kibaha 112.6 mm, Iringa 104.8 mm, Mahenge 90.9 mm, Igeri 87.6 mm, Babati 69.7 mm, Mwanza 67.37 mm, Hombolo 65.2 mm, Kilimanjaro 62.7 mm, Mugumu 61.5 mm, Mbozi 60.2 mm, Kigoma 58.7 mm, Same 53.9 mm, and Handeni 50.0 mm. Other parts of the country largely the northeastern highlands, northern coast, north of Lake Victoria basin and Kigoma north recorded rainfall amounts less than 30 mm for the period as shown in Figure 1a.

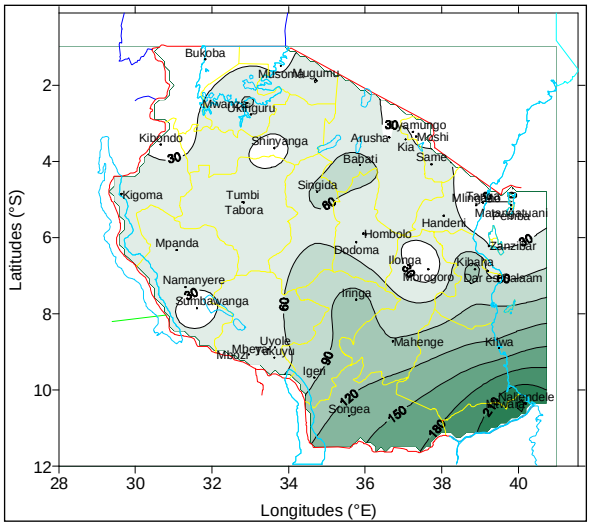

Figure 1a: January 1-10, 2013 Rainfall distribution (mm)

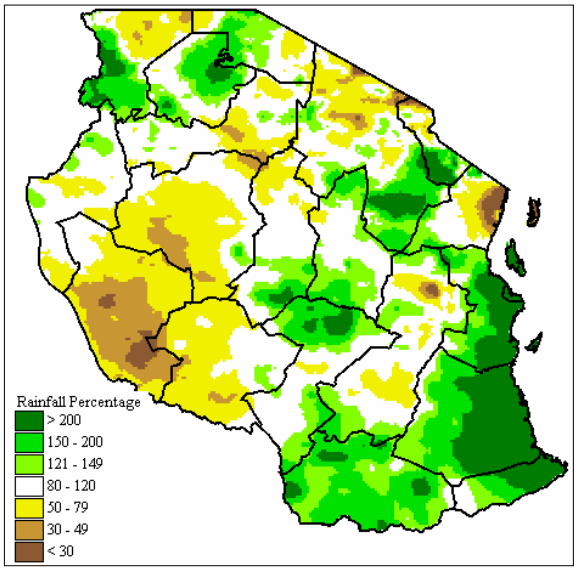

Figure 1b: January 01-10, 2013 Percent of Average Rainfall from GeoWRSI.

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 rainfall performance during the dekad whereby parts of Mbeya, Rukwa, Katavi, Tabora, Tanga, Arusha, Shinyanga, and Kagera experienced rainfall below 50% of long term average as shown in Figure 1b.

IMPACT ASSESSMENT

Agrometeorological and Crop Summary

Favorable soil moisture levels were obtained over both sectors of the country enhancing crops at early and advanced growth stages observed over unimodal and bimodal areas respectively during the dekad. A few pocket areas mainly over bimodal sector (north eastern highlands and the northern coast) recorded inadequate soil moisture supply to hamper late grown crops. Early planted crops including maize and beans over parts of Lake Victoria basin particularly Kagera and Mara regions were observed at advanced growth stages ranging from ninth leaf to near tasselling as for maize, while budding to wax ripeness stage for beans with their state ranging from good to moderate. Crops that were affected by soil moisture deficit as observed over parts of Kilimanjaro region particularly over Lyamungu, Moshi and Same areas in the northeastern highlands were generally in poor to moderate state. However, over the unimodal rainfall pattern areas particularly; central, southwestern highlands, southern region and southern coast the moderate to substantial soil moisture obtained was beneficial for crop establishment being progressing well during the dekad.

Pastures and water availability for livestock and wildlife were boosted almost countrywide.

Hydrological Summary

Water levels in dams and river-flow have increased mainly over bimodal sector due to moderate and 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 JANUARY 11-20, 2013

During this period, the southern pressure systems particularly the Mascarine are expected to continue relaxing while their counterpart to the north are expected to continue intensifying. Thus are expected to strengthen the ITCZ over unimodal areas of the country, especially over western, south-western highlands, southern regions, southern coast regions and adjoining areas of central regions of the country.

EXPECTED WEATHER DURING JANUARY 11-20, 2013

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

AGROMETEOROLOGICAL OUTLOOK DURING JANUARY 11-20, 2013

During the dekad, late grown crops over bimodal areas will benefit from the expected normal soil moisture supply. However, the above normal levels expected over parts of unimodal areas are likely to benefit crops over much of unimodal areas except over southern coast where excessive soil moisture might hamper the crops mainly over low lying areas.

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