TANZANIA METEOROLOGICAL AGENCY

DEKADAL WEATHER REVIEW

No: 14. 2012/13 Cropping Season

January11- 20, 2013

HIGHLIGHTS

Late grown crops over much of bimodal areas, and those in some parts of unimodal areas (central and western regions) are expected to experience inadequate soil moisture supply during third dekad of January.

SYNOPTIC SUMMARY

During the second irst dekad of January, 2013, the southern hemisphere high pressure cells were gradually relaxing, while the Azores anticyclone and Siberian high and the associated Arabian ridging over the northern hemisphere were noted significantly intensifying with time. As a result, the Meridional arm of the Inter-Inter-Tropical Convergence Zone (ITCZ) was slightly located in the extreme western side of the country while the zonal arm of the ITCZ moved southwards over southern sector of the country. These settings lead to north-easterlies and north-westerlies over some parts of the country, thus influenced little rainfall over most parts of the country. 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 easterly winds to the coastal regions thus resulting into showers over some parts of the coastal regions.

RAINFALL SUMMARY

During the second dekad of January, 2013, few rainfall activities were reported over much of the country except the southern coast and southern regions which recorded significant rainfall as in Figs 1a and 1b. The highest rainfall amount for the period was recorded at Mtwara station 139.2 mm, followed by Ilonga 90.7 mm, Kilwa Masoko 75.5 mm, Mahenge 75.6 mm, Tukuyu 67.0 mm, Songea 65.0 mm, while others reporting less than 50 mm in a dekad as indicated in Fig. 1a. Remaining areas including those over the Lake Victoria basin, northeastern highlands, northern coast and the central were generally dry as shown in Figure 1a.

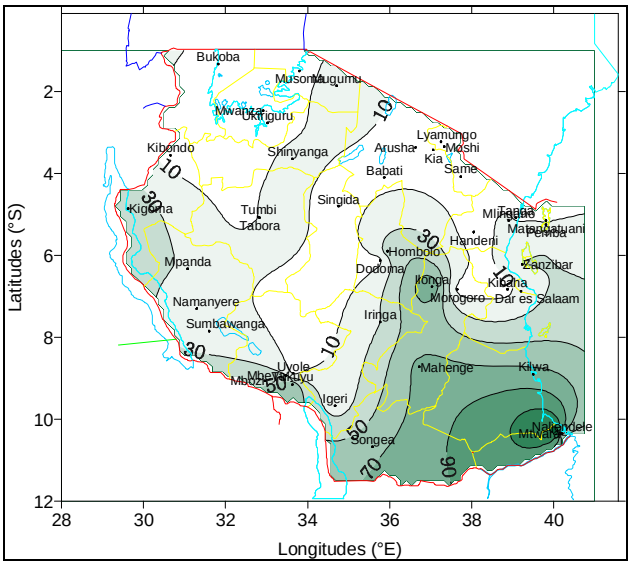

Figure 1a: January 11-20, 2013 Rainfall distribution (mm)

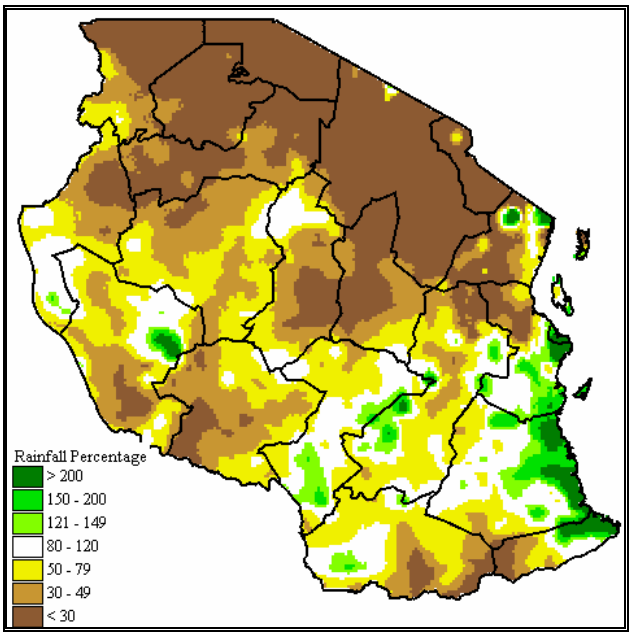

Figure 1b: January 11-20, 2013 Percent of 30 year Average Rainfall

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 most parts of the country particularly the bimodal sector experienced rainfall less than 30% of the long term average as shown in Figure 1b.

IMPACT ASSESSMENT

Agrometeorological and Crop Summary

Soil moisture obtained over both sectors of the country during the dekad depicted decreasing levels that hampered crop growth which were generally ranging from early to advanced stages over both unimodal and bimodal areas respectively. Several pocket areas mainly over bimodal sector (northeastern highlands, Lake Victoria basin and the northern coast) experienced falling trend of soil moisture that adversely hampered late grown crops at all growth stages with many approaching wax ripeness stage. Early planted crops including maize and beans over parts of Lake Victoria basin particularly Kagera, Mwanza and Mara regions were observed at near ripeness stage, while their state was ranging from good to moderate. Crops that were critically affected by soil moisture deficit include beans over parts of Kilimanjaro region particularly over Lyamungu, Moshi and Same areas of the northeastern highlands which 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 generally good countrywide.

Hydrological Summary

Water levels in dams and river-flow over both bimodal and unimodal sectors have slightly maintained their levels due to moderate rains experienced over several parts of the country during the first dekad.

Environmental Summary

Tmperatures 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 21-31, 2013

During this period, the southern hemisphere pressure systems particularly the Mascarene are expected to maintain their relatively low intensity while their counterpart to the north are expected to continue intensifying. The ITCZ is expected to be active over unimodal areas of the country especially over western, southwestern highlands, southern, southern coast, and central regions of the country.

EXPECTED WEATHER DURING JANUARY 21- 31, 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 Zanzibar and Pemba), Western regions (Kigoma and Tabora regions), central areas (Dodoma and Singida regions) are expected to feature normal rains. The 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 21-31, 2013

During the third dekad of January 2013, late grown crops over much of bimodal areas, and those in some parts of unimodal areas (central and western regions) are expected to experience inadequate 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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