

DEKADAL WEATHER REVIEW

No: 10. 2013/14 Cropping Season

December 1-10, 2013

HIGHLIGHTS

- Improved soil moisture expected during the second dekad of December 2013 is beneficial for crop and pasture development over the bimodal sector.
- Farmers over the unimodal sector are advised to engage largely on planting of crops as soil moisture expected during the period favors both the planting activities as well as crops mostly at emergence to growth stages.

SYNOPTIC SUMMARY

During the first dekad of December 2013, the northern hemisphere high pressure systems, (the Azores and Siberian highs) continued strengthening while in the southern hemisphere, the St. Helena high and Mascarin high pressure systems continued relaxing. This setting generally made the Inter-Tropical Convergence Zone (ITCZ) to cover most parts of the country and its meridional arm slightly shifted east-wards and cover the western sector of the country. In terms of wind flow, low level convergence was maintained throughout the period over the Lake Victoria Basin, western, south-western highlands and north-eastern highlands areas of the country. Moist north easterly to easterly winds were favored to reach the coastal regions of the country and the hinterland especially towards second half of the dekad.

WEATHER SUMMARY

In view of the observed synoptic and weather conditions, areas around the Lake Victoria basin, western regions, south-western highland, southern regions, coastal belt, north-eastern highlands and few areas of the central experienced thundershower activities. As shown in Figure 1a, the highest amount of rainfall during the dekad was recorded at Babati (208 mm), followed by Kizimbani (147.0 mm), Arusha (145.5 mm), Mahenge (131.9 mm), Shinyanga (114.8 mm), Kigoma (113.9 mm), Handeni (94.3 mm), Igeri (91.6 mm), Kilimanjaro International Airport (74.5 mm), Bukoba (73.9 mm), Mbozi (71.9 mm), Dar-es-Salaam (68.7 mm), Kibaha (65.1 mm), Mwanza (63.3 mm), Tukuyu (60.0 mm), Tanga (53.8 mm), Kibondo (48.0 mm), Kibaha (46.8 mm), Mpanda (46.8 mm), Tabora (37.5 mm), Singida (37.4 mm), Uyole (35.8 mm), Moshi (33.4 mm), Zanzibar (33.3 mm), Mbeya (32.6mm) and Lyamungo (31.2 mm). The remaining stations recorded a ten-day rainfall total of less than 30 mm. Figure 1b also has similar rainfall patterns showing percentage of average rainfall obtained from Satellite Rainfall Estimates (RFE) merged with gauge data from Tanzania rainfall stations network whereby areas around Lake Victoria basin, some

areas of the western regions, north-eastern highlands and few areas of the northern coast experienced above normal rainfall (more than 150% of long-term average rainfall) while a large part of the central regions experienced below normal rainfall (less than 50% of long-term average rainfall). The remaining areas experienced below normal to normal rainfall.

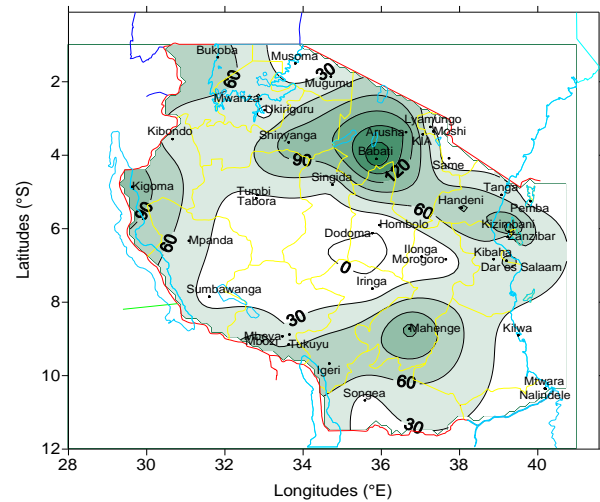


Figure 1a: December 1–10, 2013 total rainfall distribution in millimeters

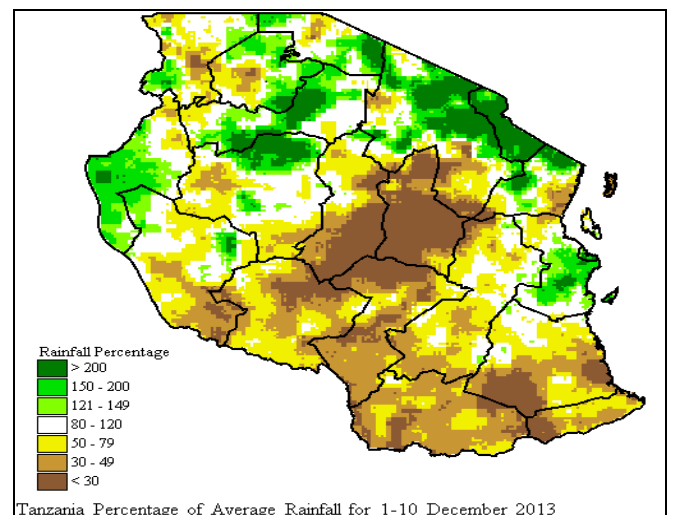


Figure 1b: December 1–10, 2013 percentage of average rainfall (mm) from Satellite Rainfall Estimates (GeoWRSI).

IMPACT ASSESSMENT

Agrometeorological and Crop Summary

During the first dekad of December 2013, soil moisture continued to replenish over most parts of the bimodal sector as well as the unimodal sector. The adequate soil moisture acquired over the bimodal sector during the first dekad was favourable for crop and pasture development. Maize crops over the bimodal sector were largely at tasselling and wax ripeness stages while beans were at full ripeness, as observed at Sengerema, Magu, Bukoba, Musoma, Pemba and Tanga regions. Over Kigoma and the north eastern highlands including Same, maize crops were at ninth leaf stage with ongoing weeding activity. However, in the northeastern highlands especially Kilimanjaro region, beans crop was stunted due to dry spells which occurred at the beginning of dekad. Over the unimodal sector, the soil moisture obtained during the dekad was favorable for planting in most areas including Singida, Mbeya, Songea, Ruvuma and Tabora. Other areas of the unimodal sector including Dodoma, farmers were finalizing land preparations and acquisition of farm inputs. Pastures and water availability for livestock and wildlife were slightly improving largely over the bimodal sector.

Hydrological Summary

Water levels in dams and river-flow were still low with slight improvement over few parts mainly of bimodal sector of the country.

Environmental Summary

During the period warmer temperature conditions prevailed over much of the country.

EXPECTED SYNOPTIC CONDITIONS DURING DECEMBER 11-20, 2013

During the second dekad of December 2013, pressure systems over the northern hemisphere are expected to continue intensifying while their counterparts in the southern hemisphere are expected to relax. On the other hand due to expected slight warming sea surface temperatures in West Indian Ocean near Tanzania, moist north-easterly to easterly flow is expected over the coast. Low level wind convergence is expected to dominate over the Lake Victoria basin, northeastern highlands towards western, south-western, central and southwestern highland regions. Slightly warming of Sea

Surface Temperatures (SSTs) is expected to be observed over Atlantic Ocean closer to Angola coast. This configuration is anticipated to cause easterlies and push Meridional arm of ITCZ slightly west wards. However more thundershower activities over the Lake Victoria basin, northeastern highlands, central, and enhanced over the western, south-western highland and southern region areas are expected, while persistence of shower and thunderstorm activities along the coast and its hinterlands is likely. Enhancement of rainfall condition is anticipated over North-eastern highlands, central, western to south-western parts of the country.

EXPECTED WEATHER DURING DECEMBER 11-20, 2013

Lake Victoria Basin (Kagera, Geita, Mwanza, Mara, Simiyu and Shinyanga regions including northern parts of Kigoma region): Frequent thundershowers are expected. Northern coast (Dar es Salaam, Morogoro and Tanga regions, the isles of Unguja and Pemba): Showers and thunderstorms are expected over few areas. North Eastern Highlands (Kilimanjaro, Arusha and Manyara regions): Frequent thundershowers associated with heavy rains at times are expected. Western regions (Kigoma, Rukwa and Tabora regions): Frequent thundershowers are expected. Central areas (Dodoma and Singida regions): Rain showers and isolated thunderstorms are expected. South-western highlands (Southern Rukwa, Katavi, Njombe, Iringa and Mbeya region): Rain showers with isolated thunderstorms are expected. Southern Coast (Mtwara and Lindi regions): Rain showers and thunderstorms are expected over few areas. Southern region (Ruvuma region): Rain showers and thunderstorms are expected.

AGROMETEOROLOGICAL OUTLOOK DURING DECEMBER 11-20, 2013

The expected rains during the second dekad of December, 2013 will improve soil moisture which will be beneficial for crop development over bimodal areas mainly Kagera, Geita, Mwanza, Mara, Arusha and Kilimanjaro as well as northern Kigoma regions. Timely weeding is highly recommended to salvage little soil moisture available for crops. The expected rains will also be beneficial for planting over the unimodal areas. Farmers over this sector are advised to start planting where they encounter sufficient soil moisture to support seed germination. However, farmers are advised to seek professional advice from their extension officers. In Dodoma, where seasonal rains are so close, farmers are advised to finalize land preparation and acquisition of farm inputs.

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