# TANZANIA METEOROLOGICAL AGENCY

# DEKADAL WEATHER REVIEW

**No: 17. 2013/14 Cropping Season** **Review for February 11-20 and Update for 21-28 February 2014**

## HIGHLIGHTS

- Improved rainfall performance during February 11-20, 2014 over the unimodal areas was favorable for crop growth and development.
- Off-seasonal rains experienced over the bimodal areas of the country were useful for land preparations and development of root crops.

## SYNOPTIC SUMMARY

During 11-20 February 2014, the northern hemisphere high pressure systems (the Azores and Siberian) relaxed slightly while in the southern hemisphere: the St. Helena high intensified and Mascarene high pressure system relaxed significantly. This made the Inter-Tropical Convergence Zone (ITCZ) to maintain its position farther extreme southern parts and spread over most parts of the country. The Meridional arm of ITCZ also continued to influence weather in the western sector of the country. Low level convergence was maintained throughout the period over Lake Victoria Basin, western, central, southwestern highlands, southern, northeastern highlands, coastal belt and its hinterlands. Less moist and strong northeasterly to weak easterly winds were favored to reach northeastern highlands, coastal regions and the hinterlands. Periods of low level strong winds and rough seas were favored along the coastal zone. Tropical depressions in the Southwestern Indian Ocean (SWIO) also contributed to modification of the weather during the dekad.

## WEATHER SUMMARY

With the observed synoptic conditions, the country experienced mainly seasonal rainfall over the unimodal areas. However, some areas of the bimodal (particularly northeastern highlands) received off-seasonal rains as shown in Figure 1. The highest amount of rainfall during the dekad was recorded at Naliendele (243.6 mm), followed by Mtwara (218.8 mm), Mahenge (192.3 mm), Arusha (111.8 mm), Mbeya (108.1 mm), Uyole (103.8 mm), Kilwa Masoko (101.2 mm), Tabora (74.7 mm), Tumbi (71.7 mm), Songea (65.7 mm), Tumbi (65.7 mm), Kibaha (64.5mm), Mbimba (62.7mm), Hombolo (60.4 mm), Handeni (60.2 mm), Tukuyu (59.9 mm), Dar es Salaam International Airport (57.1 mm), Singida (56.0 mm), Kilimanjaro International Airport(55.8 mm), Same (52.4 mm), Mwanza(51.4 mm) and Iringa (51.2 mm). The remaining stations recorded dekadal total rainfall below 50 mm as shown in Fig. 1.

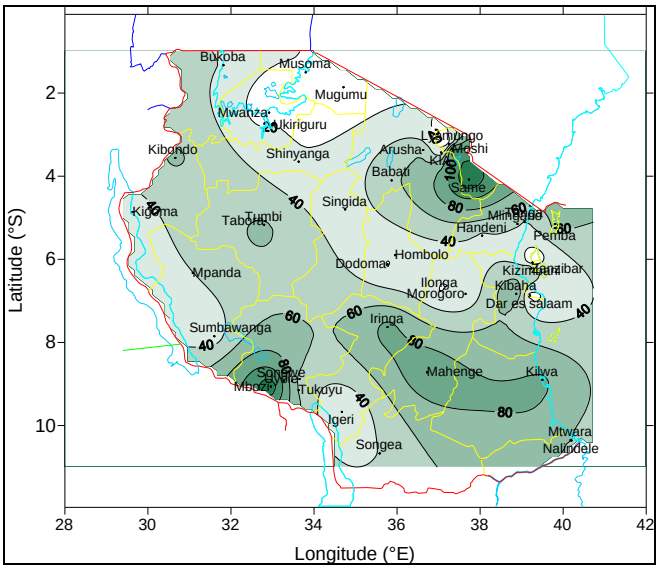


**Figure 1:** February 11–20, 2014 dekadal total rainfall distribution in millimeters.

Figure 2 shows the observed rainfall performance during the dekad as compared to long term average, whereby most of the stations received above average rainfall except Bukoba, Moshi, Pemba, Kigoma, Dodoma, and Sumbawanga which experienced below average rainfall and drier conditions.

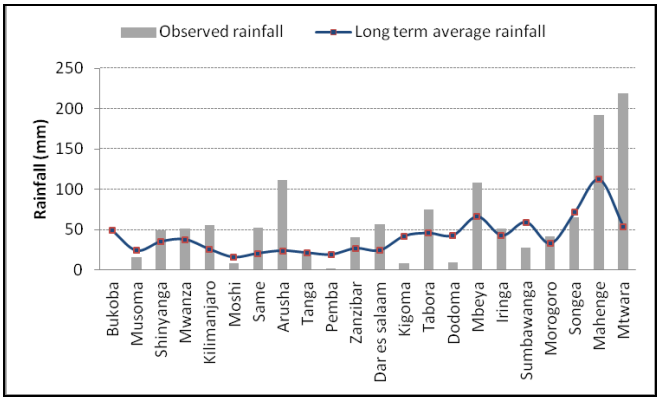


**Figure 2:** Observed rainfall performance during the dekad compared to long term average.

## IMPACT ASSESSMENT

### Agrometeorological and Crop Summary

During the period under review, the unimodal areas continued to experience seasonal rainfall. The rainfall received over the unimodal areas was favourable for crop growth and development over much of the region. Maize crop over the western regions was reported to be between flowering and waxy ripeness while over central regions the crop was between third leaf and ninth leaf with on going weeding activities in some areas. Over southern regions and southern coast, maize crop was mostly at tasseling stage and beans were at full ripeness. Maize crops over southwestern highlands were reported to be between ninth leaf and tasseling. Generally crops were reported to be in good state. On the other hand, seasonal dry conditions prevailed over much of the bimodal areas during the period except for a few pocket areas particularly Moshi, Same, Kibaha, and Zanzibar. The dominant farm activities over the bimodal areas was land preparations for *masika* season, with harvesting activities of *vuli* crops in some areas including Bukoba (Kagera region), Sengerema (Mwanza region) and Musoma (Mara region). Heavy rainfall associated with strong winds was reported in Hai district (Kilimanjaro region) causing erosion of top soils in cultivated fields and destruction of banana plantations and stored foods. Pastures and water availability for livestock and wildlife have improved over much of the country especially in unimodal areas.

### Hydrological Summary

Water levels in dams and river flows continued to improve over some parts of the country due to prevailing seasonal and off seasonal rainfall.

### Environmental Summary

During the period of 11-20, February 2014 warmer temperature conditions prevailed over much of the country.

## EXPECTED SYNOPTIC CONDITIONS DURING FEBRUARY 21-28, 2014

During the third dekad of February 2014, pressure systems over the northern hemisphere are expected to intensify significantly while in the southern hemisphere the St. Helena is expected to slightly intensify and the Mascarene is expected to relax slightly. On the other hand, the meridional arm of ITCZ is expected to retreat west ward and neutral to warm Sea Surface Temperatures (SSTs) in SWIO are likely to contribute on influencing the development of low pressure and tropical storms in the area. Low level northerly wind is expected to dominate over the Lake Victoria basin, while Low level westerly and northwesterly wind convergence is expected to dominate over the western, southwestern, central and southern areas of the country. Slight warm SSTs is expected to be observed over Atlantic Ocean closer to Angola coast.

## EXPECTED WEATHER DURING FEBRUARY 21-28, 2014

Lake Victoria Basin (Kagera, Geita, Mwanza, Mara, Simiyu and Shinyanga regions including northern parts of Kigoma region): Isolated thunderstorms and showers are expected over few areas. Northern coast (Dar es Salaam, Morogoro and Tanga regions together with the isles of Unguja and Pemba): Out of season rains are expected to continue for the next three to four days. Northeastern highlands (Kilimanjaro, Arusha and Manyara regions): Off season rains are expected to continue for the next five days over few areas. Western regions (Kigoma, Rukwa and Tabora regions): Frequent thundershowers are expected. Central areas (Dodoma and Singida regions) and southwestern highlands (Southern Rukwa, Katavi, Njombe, Iringa and Mbeya region): Rain showers and isolated thunderstorms are expected. Southern coast (Mtwara and Lindi regions) and southern region (Ruvuma region): Rain showers and thunderstorms are expected over most areas.

## AGROMETEOROLOGICAL OUTLOOK DURING FEBRUARY 21-28, 2014

During the period of February 21-28, 2014, the expected rainfall over the unimodal areas will be favorable for crops and pasture development. Timely weeding is recommended to salvage soil moisture and nutrients available for crops. Where frequent rains and thundery showers are predicted, farmers are advised to take precautionary measures for their safety as well as farms against soil erosion and leaching of nutrients. Farmers are also advised to seek professional advice from their extension officers.

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