TANZANIA METEOROLOGICAL AGENCY

DEKADAL WEATHER REVIEW

No: 16. 2013/14 Cropping Season **February 1-10, 2014**

HIGHLIGHT

- Adequate soil moisture experienced during February 1-10, 2014 over the unimodal areas was favorable for crop growth and development.
- Off-seasonal rains expected over the bimodal areas of the country will be beneficial mainly for land preparations for M*asika* crop and development of root crops.

SYNOPTIC SUMMARY

During 1-10 February 2014, the northern hemisphere high pressure systems (the Azores and Siberian) continued strengthening while the southern hemisphere pressure systems (the St. Helena and Mascarene) high pressure systems relaxed significantly. This setting made the Inter-Tropical Convergence Zone (ITCZ) to maintain its position farther to the extreme parts of the country. The Meridional arm of ITCZ also continued to influence weather in the western sector of the country. In terms of wind flow; low level convergence was maintained throughout the period over the southern part of the Lake Victoria basin, western, central, south-western highlands and southern areas of the country. Less moist and strong north-easterly to weak easterly winds were favored to reach north-eastern high lands, coastal regions and the hinterland. 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 condition, the country experienced seasonal rainfall mostly over the unimodal areas, with a few pocket areas of the bimodal areas experiencing off-seasonal rains (see Figure 1). The highest amount of rainfall during the dekad was recorded at Mbeya (171.6 mm), followed by Same (137.6 mm), Mbimba (134.5 mm), Moshi (109.5 mm), Mahenge (95.2 mm), Iringa (86.8 mm), Kilwa Masoko (83.3 mm), Kibaha (79.5 mm), Mpanda (76.4 mm), Mtwara (66.8 mm), Tumbi (65.8 mm), Pemba (64.1 mm), Kibondo (63.4 mm), Zanzibar (62.9 mm), Arusha (59.1 mm), Tukuyu (57.8 mm), Tabora (57.5 mm), Babati (57.0 mm) and Uyole (54.4 mm). The remaining stations recorded dekadal total rainfall below 50 mm.

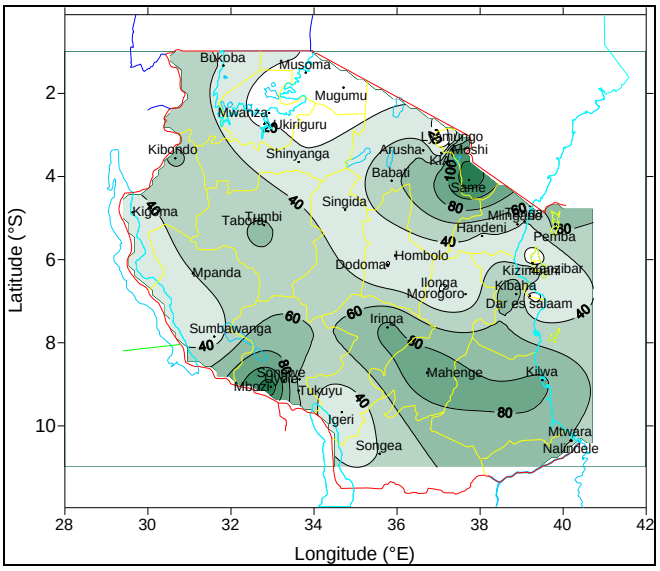

Figure 1: February 1–10, 2014 dekadal total rainfall distribution in millimeters.

IMPACT ASSESSMENT

Agrometeorological and Crop Summary

During the period under review, the unimodal areas experienced rainfall that generally led to significant improvements of soil moisture over those areas. The adequate soil moisture was experienced over areas including Mtwara, southern Morogoro, Iringa, Mbeya, Rukwa, Tabora and Kigoma regions. The field activities mainly weeding and fertilizer application were easily carried out following the favorable soil moisture levels obtained, except for Kigoma region where maize crop was entering the tasseling stage. Generally crops for the period were reported in good state. As for bimodal areas, maize and beans crops reached full ripeness stage with harvesting activities started in some areas including Bukoba, Sengerema (Mwanza region) and Musoma (Mara region). 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. Apart from favoring harvesting activities mainly of maize and bean crops the dry condition also was

favorable for initial land preparations for *Masika* crop over parts of the bimodal areas particularly Lake Victoria basin and northeastern highlands. Flash floods were reported in Simanjiro district (Arusha region) and Mwanga district (Kilimanjaro region) causing destruction of infrastructures.

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 have decreased over most parts of bimodal areas due to prevailing seasonal dry conditions, significant improvement was reported mainly over unimodal areas of the country.

Environmental Summary

During the period of 1-10, February 2014 warmer temperature conditions prevailed over much of the country.

EXPECTED SYNOPTIC CONDITIONS DURING FEBRUARY 11-20, 2014

During the second dekad of February 2014, the high pressure systems over the northern hemisphere are expected to continue with significant intensification while the ones in the southern hemisphere are expected to slightly intensify. On the other hand, the westerly wind anomaly is expected to continue. This will control the weather development mechanism while neutral to warm Sea Surface Temperatures (SSTs) in southwest Indian Ocean will influence development of low pressure and tropical storms. 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, south-western, central, southern and southern coast areas of the country. Slight cool SSTs are expected to be observed over Atlantic Ocean closer to Angola coast. This configuration is anticipated to cause westerly wind anomalies which will be in phase with the shifting of the meridional arm of ITCZ slightly east wards.

EXPECTED WEATHER DURING FEBRUARY 11-20, 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): Off 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): Rain showers and isolated thunderstorms are expected. Southwestern highlands (southern Rukwa, Katavi, Njombe, Iringa and Mbeya regions): Rain showers with 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 11-20, 2014

During the period of February 11-20, 2014, the expected rainfall over the unimodal areas will provide adequate soil moisture to favor crops and pasture development. The predicted off-seasonal rains over the bimodal areas are expected to provide adequate soil moisture beneficial mainly for land preparation and crop development mainly root crops. Timely weeding is also recommended to salvage soil moisture and nutrients available for crops. Where frequent rains are predicted, farmers are advised to protect their farms from soil erosion and leaching of nutrients. Farmers are also advised to seek professional advice from their extension officers.

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