TANZANIA METEOROLOGICAL AGENCY

DEKADAL WEATHER REVIEW

No: 21. 2013/14 Cropping Season **Review for March 21-31 and update for April 1-10, 2014**

HIGHLIGHTS

- Rainfall performance during March 21-31, 2014 in both bimodal and unimodal areas was favourable for crops development.
- Farmers are advised to take precautionary measures for their safety and their farms where frequent rains and thundery showers are predicted.

SYNOPTIC SUMMARY

During the first half of March 21-31, 2014, high pressure systems over the northern hemisphere (Azores and Siberian highs) were slightly weaker as compared to those of the southern hemisphere (St. Helena and Mascarene highs). The Mascarene high extended its ridge over the country especially towards the eastern parts which was eroding the zonal arm of the Inter-Tropical Convergence Zone (ITCZ) leading to mainly dry conditions over the eastern part of the country. In the second half of the dekad, the Mascarene high relaxed significantly giving rise to build up of the zonal arm of the ITCZ, which strengthened and formed a low pressure cell just off the southern coast of the country in Lindi and Mtwara regions. The low pressure cell was associated with heavy rains over most parts of the country during the second half of the dekad. The cell deepened further to an intense Tropical Cyclone towards the end of the dekad while moving southeastward towards Madagascar. Throughout the dekad, the Meridional arm of the ITCZ was quite strong and influenced weather over most areas of the western half of the country.

WEATHER SUMMARY

During this period, the country received significant rainfall over both the unimodal and bimodal areas. The highest amount of rainfall during the dekad was recorded at Dar es Salaam Port (218.9 mm) followed by Julius Nyerere International Airport (209.9 mm), Bukoba (168.3 mm), Mahenge (166.8 mm), Kibaha (154.5 mm), Ilonga (122.1 mm), Pemba (107.1 mm), Songea (98.9 mm), (Tukuyu (94.8 mm), Mbimba (92.1 mm), Lyamungo (91.0 mm), Naliendele (85.1 mm), Shinyanga (80.4 mm), Handeni (75.1 mm), Ukiriguru (74.7 mm), Mlingano (73.5 mm), Babati (71.9 mm), Hombolo (69.2 mm), Mtwara (63.0 mm), Dodoma (59.6 mm), Kibondo (59.3 mm), Morogoro (57.3 mm), Tanga (56.8 mm), Tabora (56.7 mm), Moshi (54.5 mm), Igeri (52.0 mm), Uyole (51.8 mm) and Zanzibar (50.2 mm). The remaining areas had dekadal total rainfall below 50 mm as shown in Figure 1.

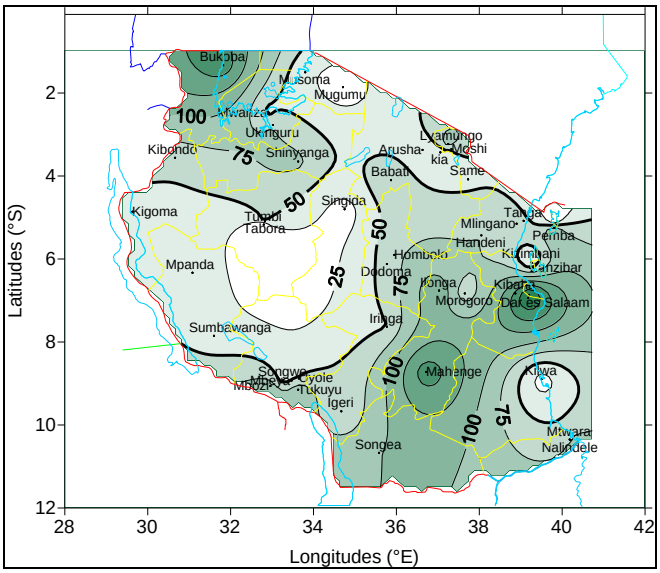

Figure 1: March 21–31, 2014 dekadal total rainfall distribution in millimeters.

IMPACT ASSESSMENT

Agrometeorological and Crop Summary

During the period under review the country continued receiving rainfall over both the unimodal and the bimodal areas, with periods of heavy rainfall and flooding over some areas. The rainfall received over the unimodal areas was favourable for crop and pasture development. Maize crop over much of the unimodal areas including southern coast, southern regions and south-western highlands was at waxy ripeness stage. Over central regions the crop was between flowering and waxy ripeness stages while over the western regions maize crop was between waxy ripeness and full ripeness. Generally, crops in these areas were reported in good condition. However, maize crop in some places of Shinyanga and Dodoma regions experienced wilting conditions while at tasseling stage due to long dry spells that occurred in the area. Over the bimodal areas, the rainfall that was observed during the dekad was favourable for crop establishment over much of the region with ongoing weeding activities as reported from Mwanza, Mara,

Manyara and Kilimanjaro regions. Periods of severe weather events were reported from different places including Kigoma, Kagera and Morogoro regions damaging crops, livestock and stored foods. In Kasulu district (Kigoma region), a case of lightning associated with thundery showers was reported to kill 20 cattle while in Muleba district (Kagera region), heavy rainfall associated with strong winds damaged maize and banana crops and stored foods. Similarly flash flooding in Morogoro region killed a number of domesticated hens and damaged crops in the field and stored foods. Pastures and water availability for livestock and wildlife have improved greatly over much of the country.

Hydrological Summary

Water levels in dams and river flows discharge improved greatly over much of the country resulting into river floods over some areas.

Plate 1: Flooding of Ruvu River due to excessive rains during third dekad of March 2014 (picture taken at the neighborhoods of Ruvu Bridge in Coast region on Sunday 30th March 2014 by Isack Yonah)

Environmental Summary

During the period of March 21-31, 2014 moderate temperature conditions prevailed in the country.

EXPECTED SYNOPTIC CONDITIONS DURING APRIL 1-10, 2014

In the first dekad of April, 2014 the pressure systems over the northern hemisphere are expected to relax slightly while in the southern hemisphere, both the St. Helena and the Mascarene highs are expected to intensify. This configuration is expected to confine the orientation of the ITCZ over most part of the country and to influence activities over the country. On the other hand, the meridional arm of the ITCZ is expected to shift further eastern side of the Congo basin influencing weather over western and central parts of the country. Neutral to warm sea surface temperatures over southwest Indian Ocean, close to Tanzanian coast, are likely to enhance convection over some areas and therefore enhance activities especially over the coastal areas during the period.

EXPECTED WEATHER DURING APRIL 1-10, 2014

Lake Victoria Basin (Kagera, Geita, Mwanza, Mara, Simiyu and Shinyanga regions including northern parts of Kigoma region): Rain showers and thunderstorms are expected. Northern coast (Dar es Salaam, Morogoro and Tanga regions together with the isles of Unguja and Pemba) and northeastern highlands (Kilimanjaro, Arusha and Manyara regions): Rainshowers with isolated thunderstorms over few areas are expected throughout period. Central areas (Dodoma and Singida regions): Few rains with isolated thunderstorms are expected, particularly during the first five days of the period. Southern Coast (Mtwara and Lindi regions): Occasional showers and thunderstorms are expected. Western regions (Kigoma, Rukwa and Tabora regions) and southern region (Ruvuma region): Frequent showers and thunderstorms are expected. Southwestern highlands (southern Rukwa, Katavi, Njombe, Iringa and Mbeya region): Frequent showers and thunderstorms are expected throughout the period.

AGROMETEOROLOGICAL OUTLOOK DURING APRIL 1-10, 2014

During the period of April 1-10, 2014, the expected rainfall over the unimodal areas will be favorable for late grown crops at vegetative and earing growth stages. Over the bimodal areas, the predicted rains will be useful for crop growth and pasture development. Where frequent rains and thundery showers are predicted (particularly over southern regions, western and south-western highlands), farmers are advised to take precautionary measures for their safety and their farms in general. However, proper soil water management is recommended especially over the bimodal areas to salvage soil moisture and nutrients available for crops. Farmers are strongly advised to seek professional advice from nearby agriculture and livestock extension officers.

Prepared by
TANZANIA METEOROLOGICAL AGENCY
3rd, 4th & 10th Floors - Ubungo Plaza – Morogoro Road.
P.O. Box 3056 Tel. 255 -(0) 22 – 2460706-8 ; Fax: 255 - (0) 22 – 2460718 E-mail: (1) met@meteo.go.tz (2) agromet1_tz@meteo.go.tz
Dar es Salaam UNITED REPUBLIC OF TANZANIA