



TANZANIA METEOROLOGICAL AGENCY



DEKADAL WEATHER REVIEW

No: 20 Cropping Season 2010/11

March 11-20, 2011

HIGHLIGHTS

- Substantial soil moisture improvements were observed over most parts of the country particularly in the bimodal areas, signifying onset of *Masika* season.

SYNOPTIC SITUATION

During the second dekad of March 2011, the northern hemisphere high pressure cells (the Azores and Siberian) and the Arabian ridge relaxed thus allowed the zonal arm of the Inter-tropical Convergence Zone (ITCZ) to migrate northwards over Tanzania. The southern systems, southern hemisphere high pressure cells, St. Helena and Mascarene anticyclones were slightly intense resulting in a northward shift of the rain making mechanism (ITCZ). The meridional arm of the ITCZ shifted slightly eastwards over parts of DRC and western areas of the country.

RAINFALL SUMMARY

During the dekad most areas of the country experienced substantial amounts of rainfall with the highest values recorded at Mahenge 315.0 mm, followed by Matangatuani 182.9 mm, Bukoba 181.1 mm, Ilonga 176.4 mm, Ifakara 175.4 mm, Igeri 126.9 mm, Musoma 124.1 mm, Ngara 118.7 mm, Same 111.7 mm, Igoma 100.7 mm, Mbozi 99.1 mm, Arusha 96.2 mm, Tanga 91.0 mm, Babati 77.6 mm, Naliendele 75.7 mm, Uyole 65.8 mm, Sumbawanga 65.2 mm, Kibaha 59.6 mm, Shinyanga 56.5 mm, Singida 55.3 mm, Pemba 54.9 mm, Mtwara 51.5 mm and Dodoma 50.0 mm. The rest of the stations in the sample stations recoded rainfall below 50 mm as shown in Figure 1. On the other hand most parts

of bimodal areas (northern coast, northeastern highlands, and Lake Victoria basin) were generally wet implying the onset of the long rains (*Masika*) in those areas.

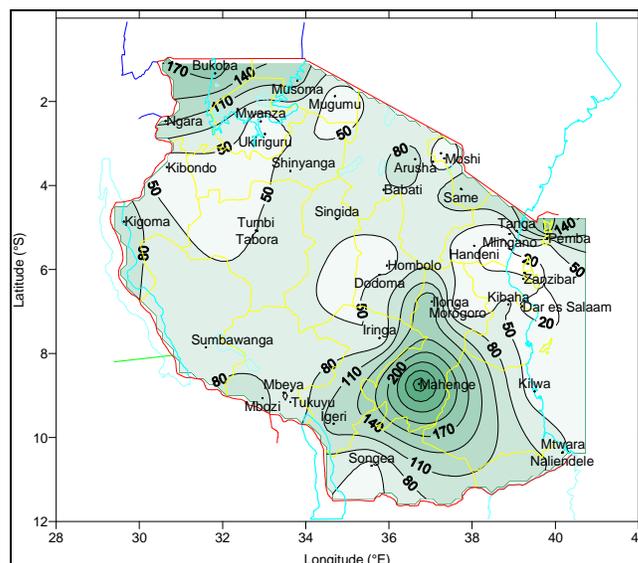


Fig. 1: March 11-20, 2011 Rainfall distribution (mm)

IMPACT ASSESSMENT

Agrometeorological and Crop Summary

Substantial soil moisture improvements were observed over most parts of the country particularly in the bimodal areas, signifying onset of *Masika* season. The situation enhanced farm activities including finalizing land preparation and planting of crops (maize, beans, and paddy). Likewise, over the unimodal areas mainly southwestern highlands, southern, southern coast, and Morogoro (south) experienced significant soil moisture supply that

avored field crops at stages ranging from early vegetative to near maturity for the late planted to the early planted crops respectively. A few areas in this sector experienced prolonged poor soil moisture supply which prompted farmers to opt for short term variety crops including sweet potatoes, peas, and cassava, as reported from Meatu and Maswa districts (Shinyanga region), Ismani (Iringa region) and Kondoa district (Dodoma region).

Pastures and water availability is expected to improve over northeastern highlands as a result of *Masika* rains reported in the region during the period under review.

Hydro-meteorological Summary

Water levels in lakes, dams, and rivers in the country have improved slightly following ongoing *Msimu* and the start of *Masika* rains. However, water for human and industrial usage and hydropower generation should be used sparingly.

Environmental Summary

Temperatures over most areas in the country were generally hot coupled with high humidity leading to uncomfortable conditions, and it is expected to continue during the coming dekad.

EXPECTED SYNOPTIC SYSTEMS DURING MARCH 21-31, 2011

The southern hemisphere systems, the St Helena and Mascarene highs are expected to be strong pushing the ITCZ to the north of its current position. In the northern hemisphere, the Azores high is expected to relax due to the warming over the area. The Siberian high and the associated Arabian ridge are expected to start relaxing slightly.

The meridional arm of the ITCZ is expected to be active mainly over Congo basin due to warming over southwestern coast of Africa and occasionally oscillate eastwards towards western parts of Tanzania; the zonal arm of ITCZ is expected to be more active over the country signifying the gradual migration of the ITCZ northwards, and further allowing the *Masika* rains to spread over bimodal areas.

EXPECTED WEATHER SITUATION DURING MARCH 21-31, 2011

Lake Victoria Basin (Kagera, Mara, Shinyanga, and Mwanza regions): Moderate rain showers are expected during the dekad. **Western region** (Tabora and Kigoma regions): Isolated showers and thunderstorms are expected. **Northern coast and its hinterland** (Dar es Salaam, Morogoro, Tanga and Coastal regions, Isles of Unguja and Pemba): Isolated rain showers are expected. Moderate rainfall events are likely mainly over Morogoro and Tanga regions. **Southern coast** (Mtwara and Lindi regions): Moderate thunder showers are expected. **Northeastern Highlands** (Arusha, Kilimanjaro and Manyara regions): Isolated rain showers are expected and likely to be moderate at times. **Southwestern highlands** (Rukwa, Mbeya and Iringa regions and southern Morogoro (Mahenge areas): Thunder showers are likely during the dekad. Enhanced rainfall is expected over Mbeya, southern Morogoro and eastern parts of Iringa. **Southern region** (Ruvuma region): Enhanced rainfall is expected during the dekad. **Central region** (Dodoma and Singida regions): Isolated rain showers are expected.

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