# TANZANIA METEOROLOGICAL AGENCY

# DEKADAL WEATHER REVIEW

No. 24, 2009/10 Cropping Season April 21-30, 2010

HIGHLIGHTS

- Easterly waves enhanced rainfall activities over the Coastal belt.
- Over bimodal areas, crops were ranging from early vegetative to advanced vegetative growth stages and in good state.
- Over unimodal rainfall sector most field crops were approaching full ripeness and the state was generally good.

## SYNOPTIC SITUATION

During the 3rd dekad of April 2010, the Southern Hemisphere systems (St. Helena and Mascarene anticyclones) continued to intensify while the Siberian anticyclone and the associated Arabian ridge in the Northern Hemisphere relaxed thus causing the rain-making mechanism, Inter-Tropical Convergence Zone (ITCZ) to move further northwards over the northern sector of the country. The zonal component of the ITCZ remained relatively active over the eastern sector of the country. Towards the end of the dekad there was a heavy cloud extending from Southwestern Indian Ocean spreading over the whole coastal belt of the country. The cloud which was associated with an easterly wave enhanced rainfall activities over the areas. Persistence of the East African Ridge over southwestern and central areas of the country continued to suppress rainfall development over the region.

## RAINFALL SUMMARY

West of Lake Victoria basin and coastal belt of the country experienced enhanced rainfall activities during the dekad with more than 200 mm rainfall reported at Dar es Salaam station 268.1 mm (northern coast), Lyamungo 223.1 mm (northeastern highlands), Bukoba 220.0 mm (Lake Victoria Basin), and Kilwa 207.2 mm (southern coast) as shown in Figure 1. Much of the country recorded rainfall amounts below 100 mm with few areas over unimodal rainfall pattern (central and southwestern highlands) experiencing dry condition as depicted in the rainfall map in Figure 1.

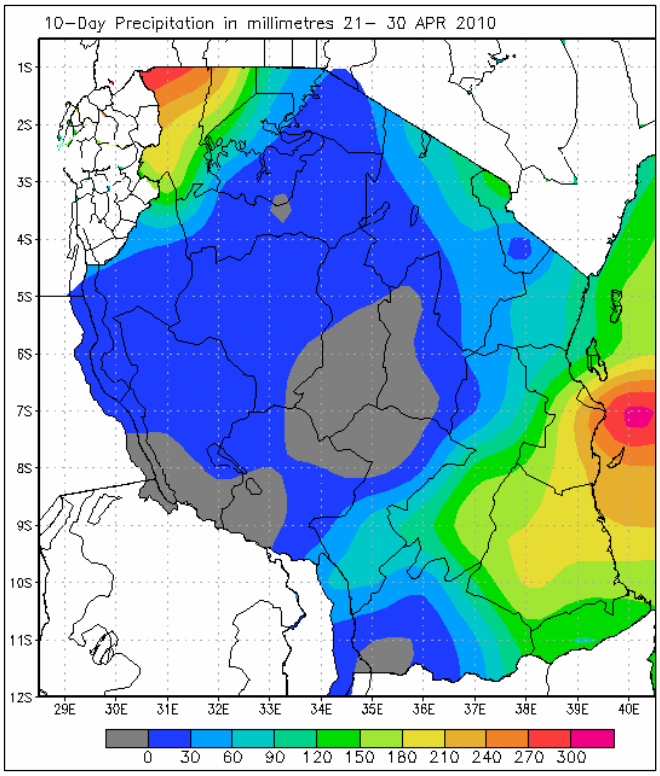


Figure 1: April 21-30, 2010 Rainfall Distribution

## IMPACT ASSESSMENT

### Agrometeorological and Crop Summary

During the dekad, soil moisture increased significantly over much of western Lake Victoria basin and coastal leading to short term excessive soil moisture to crops. During the dekad most areas of bimodal rainfall pattern

had crops mainly maize, paddy and beans ranging from early vegetative (late planting) to advanced vegetative growth stages (for the early planted crops). Crops were generally in good state as observed mainly over lowland areas of northeastern highlands (Hai and Same districts) and northern coast (Tanga and Coast regions) where soil moisture supply from *Masika* rains was adequate. Weeding was the major activity that occupied most farmers in bimodal areas. Over unimodal areas most crops particularly maize, beans, paddy, sunflower and sorghum were generally between moderate and good state at vegetative to full ripeness stages. The early planted beans mainly over higher altitude areas have already been harvested and second planting phase was in progress at vegetative stage. Paddy crop in moderate state was from early vegetative to wax ripeness stages, while planting of wheat mainly over parts of Mbeya region was almost over and the crop looks good at emergence stage. Market supply for cassava over several areas continued fairly well.
Pasture and water availability are good and livestock conditions are normal.

### Hydro-meteorological Summary

The ongoing rains over most parts of the country have maintained water levels in lakes, dams and rivers, though a few cases of river floods were observed. Water availability for human and industrial use and energy generation purposes has improved.

### Environmental Summary

During the dekad temperatures were generally mild with local variations of high temperatures at the beginning of the dekad causing slight discomfort over the coastal belt.

## EXPECTED SYNOPTIC SYSTEMS DURING MAY 1-10, 2010

For the coming dekad, the Southern Hemisphere Systems (the Mascarene and St. Helena anticyclones) are expected to continue intensifying while the Azores and Siberian anticyclones together with the Arabian ridge in the Northern Hemisphere are likely to relax allowing the zonal component of the ITCZ to continue moving northwards.

Warm Sea Surface Temperatures (SSTs) over the Southwest Indian Ocean including a warm pool over the Mozambique Channel are likely to allow southeasterly to easterly wind flow pattern from the Indian Ocean. The flow is therefore expected to sustain moisture over the eastern part of the country.

## EXPECTED WEATHER SITUATION DURING MAY 1-10, 2010

**Lake Victoria Basin (Kagera, Shinyanga, Mara and Mwanza regions)** is likely to experience normal to above normal rainfall. **Northern coast (Dar es Salaam, Morogoro, Tanga and Coastal regions together with the Islands of Unguja and Pemba)** are expected to experience normal rainfall. Heavy rains are likely to continue at times especially over the Islands and the coastal belt areas (Dar es Salaam, Tanga and Coastal regions). **Southern Coast (Mtwara and Lindi regions):** Most areas are expected to experience enhanced rainfall thus extending the seasonal rainfall over the area. **Northeastern Highlands (Arusha, Kilimanjaro and Manyara regions)** are expected to experience normal to above normal rainfall. **Southwestern highlands (Rukwa, Mbeya and Iringa regions)** are expected to experience mainly normal rainfall over high grounds. **Southern region (Ruvuma region)** and part of Ulanga district are expected to experience occasional rainfall. **Western areas (Tabora and Kigoma regions)** are expected to feature mainly normal rainfall. However Kigoma and western parts of Tabora are likely to experience enhanced rainfall. **Central (Dodoma and Singida regions)** are expected to feature mainly dry conditions with a few outbreaks of showers.

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