



# TANZANIA METEOROLOGICAL AGENCY



## DEKADAL WEATHER REVIEW

### HIGHLIGHTS

- Persistent dry conditions have adversely affected beans in Kagera region
- Land preparations for *Vuli* crop are underway in bimodal rainfall areas

No.5. 2010/11 Cropping Season

October 11-20, 2010

### SYNOPTIC SITUATION

During the 2<sup>nd</sup> dekad of October 2010, the Siberian high together with the Arabian ridge in the northern hemisphere intensified slightly, but the Azores high remained relatively weak. In the southern hemisphere the St. Helena high, Mascarene high and the associated East African ridge remained relatively weak, which led to less rainfall activities over most parts of the country especially the coastal areas. The zonal component of the rain-band system, the Inter-tropical Convergence Zone (ITCZ) remained diffused. The low level wind flow over the country varied between northeasterly to southeasterly along the coast and mainly southerly to southeasterly over the mainland. However, a northwesterly wind was observed over the Lake Victoria Basin and Kigoma which resulted into a weak low level convergence with enhanced rainfall and thunderstorms activities over these areas.

### RAINFALL SUMMARY

During the second dekad of October 2010 seasonal dry conditions were experienced across much of unimodal areas of the country. False start of short rains “*Vuli*” was also reported over bimodal areas of Lake Victoria Basin where dry spells exceeding 10 days were reported. However, few stations over bimodal rainfall areas that recorded rainfall were led by Mwanza 37.6 mm,

followed by Kibondo 28.9 mm, Zanzibar 24.1 mm, Bukoba 20.4 mm, and Ukiriguru 14.6 mm. Remaining few stations from sample stations recorded rainfall below 10 mm, as shown in Figure 1.

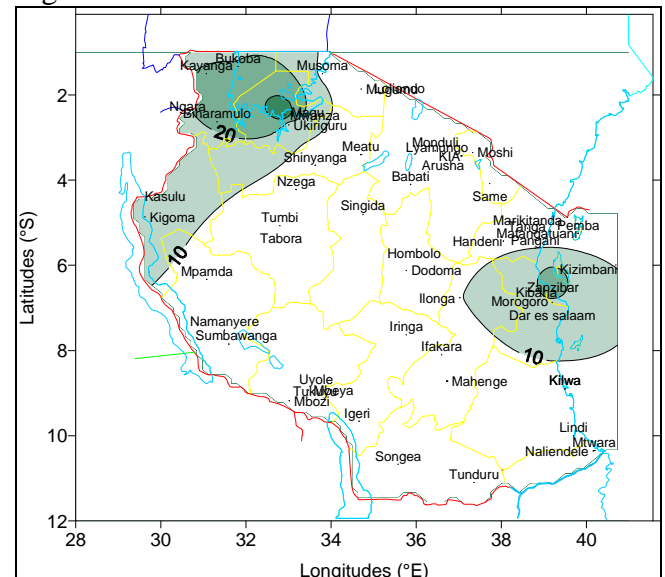


Figure 1: October 11-20, 2010, Rainfall distribution

### IMPACT ASSESSMENT

#### Agrometeorological and Crop Summary

Persistent dry conditions were widely experienced over most parts of the country adversely affecting field crops particularly beans over parts of Lake Victoria basin mainly in Kagera region. In the remaining areas of bimodal rainfall pattern, the major activity was still land preparations for *Vuli* crop. Over unimodal areas land preparations are expected to start in November 2010.

The continuing dry conditions have adversely affected availability of water and pastures for livestock and wildlife over northeastern highlands (Arusha, Manyara, and Kilimanjaro regions), central (Dodoma and Singida regions) and parts of southern coast regions of the country.

### ***Hydro-meteorological Summary***

Water levels in lakes and dams and river flows have declined due to the prevailing dry season, thus water for human and industrial usage, and hydro-power generation should be used sparingly.

### ***Environmental Summary***

Cool temperatures over most areas in the country have led to comfortable conditions at night although over high altitude areas cold temperatures were uncomfortable as reported from Mbeya, Sumbawanga (southwestern highlands), Mbulu and Meru districts (northeastern highlands).

### **EXPECTED SYNOPTIC SYSTEMS DURING OCTOBER 21-31, 2010**

In the southern hemisphere systems, the St Helena high and Mascarene high with the associated East African ridge are expected to remain relaxed and slightly move southwards. In the northern hemisphere, the Azores high is expected to slightly intensify and push southwards. The Siberian high is expected to intensify in the beginning of the dekad and gradually relax towards the end of the dekad. However, the Arabian ridge is expected to remain somehow weak. In this regard the zonal arm of the ITCZ in the eastern Africa and the adjacent Indian Ocean is expected to remain relatively diffused.

In the lower levels, a diffluent easterly flow is expected over the coast of Tanzania at the beginning of the dekad but enhanced southeasterly flow will feature over the entire coast through the hinterland towards the end of the dekad. A westerly wind flow from Congo basin is also expected to persist over the Lake Zone and a few parts of extreme western regions at the beginning of the dekad, but mainly easterly flow will be featured towards the end of the dekad.

### **EXPECTED WEATHER OUTLOOK DURING OCTOBER 21-31, 2010**

Lake Victoria Basin (Kagera, Mara and Mwanza regions) and Kigoma region are likely to experience mainly showers and thunderstorms. Shinyanga region will mainly experience isolated cases of showers and thunderstorms. Northern coast and hinterland (Dar es Salaam, Morogoro, Tanga and Coastal regions, Unguja and Pemba Islands) are likely to experience isolated rain showers. Southern coast (Mtwara and Lindi regions), mainly light rains are expected. Northeastern highlands (Arusha, Kilimanjaro, and Manyara regions) are expected to experience light rain showers over few areas. Southwestern highlands (Rukwa, Mbeya and Iringa regions), minimum chances of rainfall activities are expected over few areas. Southern region (Ruvuma region) and part of Mahenge are expected to experience mainly dry conditions, with chances of getting light rain showers. Central (Dodoma, Singida and Tabora regions) mainly dry conditions are expected.