TANZANIA METEOROLOGICAL AGENCY

DEKADAL WEATHER REVIEW

No: 14 2010/11 Cropping Season January 11-20, 2011

HIGHLIGHTS

Significant soil moisture supply was observed over parts of unimodal areas, hance enhancing field activities including land preparation, planting and first weeding as reported from various parts of the region.

SYNOPTIC SITUATION

During the second dekad of January 2011, the northern hemisphere high pressure cells, the Siberian high and its associated Arabian ridge continued to intensify and pushing the zonal arm of the Inter-Tropical Convergence Zone (ITCZ) further south of the country. The Azores high on the other hand remained slightly intense. The meridional arm of ITCZ kept on oscillating from the central part of the country to the western parts throughout the dekad. The Southern hemisphere high pressure cells, St Helena and Mascarene anticyclones remained slightly weak at the beginning of the dekad but intensified towards the end of the dekad, which however did not affect the position of the ITCZ as the systems were located further southwards towards the pole. The dominant low level wind flow was observed to be northeasterly to easterly along the eastern sector of the country, northwesterly along the Lake zone area. The western sector of the country featured westerly to northwesterly flow in the beginning of the dekad turning to easterly towards the end of the dekad. The push of less moist wind from Indian Ocean and moist wind from Congo Basin resulted in to wind convergence over much area of the country especially central, Lake basin, western region, southwestern highlands and southern parts of the country. As a result isolated to scattered rainfall and thunderstorm activities were observed over these areas.

RAINFALL SUMMARY

During the second dekad rainfall activities were experienced mainly over the unimodal areas where the highest rainfall amounts recorded exceeded 100 mm for the period as depicted in Figure 1. The highest rainfall for the period was recorded at Tukuyu (125.4) mm, followed by Songea (108.5mm), Uyole (106.9mm), Ilonga (103.0 mm), Kibondo (102.0 mm), Sumbawanga (101.3 mm),Shinyanga (98.5 mm), Tabora (95.1 mm), Igeri (90.8 mm), Mwanza (75.1 mm), Ukiriguru Mbeya (72.1 mm), Dodoma (67.7 mm), Mahenge (66.3 mm), and Naliendele (53.2 mm). the eastern sector of the country recorded rainfall not exceeding 40 mm as shown in Fig 1.

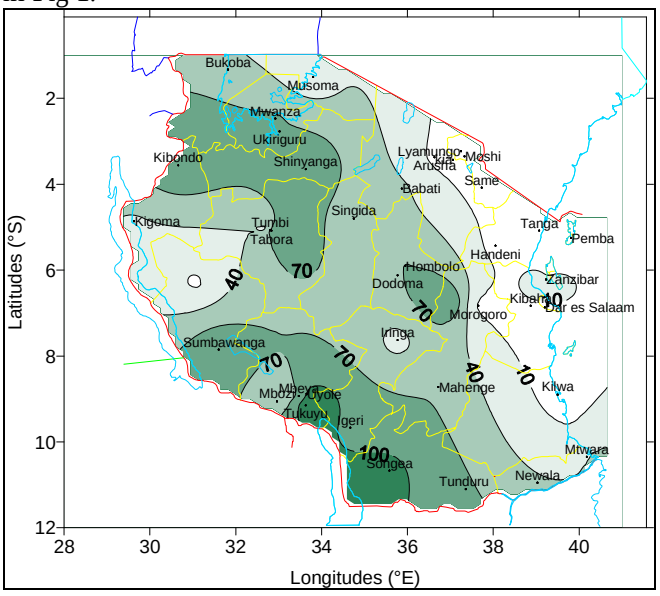

Figure1: January 11-20, 2011, Rainfall distribution

IMPACT ASSESSMENT

Agrometeorological and Crop Summary

Significant soil moisture supply was observed over parts of unimodal areas hence enhancing field activities including land preparation, planting and first weeding as reported from various parts of the region. Ifakara and Ilonga areas in Morogoro region were dominated by land preparations. For the water stressed crops over some

areas particularly in bimodal sector, the soil moisture obtained was partially helpful for the revival of the impeded crops as those reported at vegetative stage over northeastern coast mainly Pangani and Handeni districts. A much severe case was reported over parts of northeastern highlands; Lyamungo where beans crop approached permanent wilting and in Same (lowland) the season proved so poor just like what happened for beans crop in Biharamulo district where it was adversely affected and never recovered again. Crop replanting over several areas of the sector was reported following permanent wilting of crops at vegetative stage caused by poor distribution of soil moisture. Generally, field crops were ranging from emergence to near tasseling in poor to moderate state for maize while beans were from emergence to near ripeness in poor to moderate state as reported from parts of bimodal areas.

On the other hand, the soil moisture boost obtained during the period regenerated pastures for livestock and wildlife over most parts of the country.

Hydro-meteorological Summary

Water levels in lakes and dams and river flows have improved slightly, 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 the warming trend will be maintained during the coming dekad.

EXPECTED SYNOPTIC SYSTEMS DURING JANUARY 21-31, 2011

In the southern hemisphere, the St Helena and Mascarene highs are expected to remain slightly strong and confined far south to the pole. In the northern hemisphere, the Azores high is expected to remain slightly intense and confined to the northern part of Africa while Siberian high and the associated Arabian ridge are likely to continue intensifying and pushing southwards in the beginning of the dekad and weaken to the end of the dekad. The meridional arm of ITCZ is expected to oscillate between the Congo basin and western half of country; it will be confined to the western sector towards the end of the dekad. The zonal arm of ITCZ is expected to remain south of the country, but occasionally will oscillate towards the southern parts of the country. The low level wind flow is expected to be mainly northeasterly over the larger part of the country but northwesterly along the south eastern part of the country and easterly along the southwestern part of the country especially towards the end of the dekad. This as a result will create diffluent flow along the central and southwestern parts of the country. Development of deep low south east of Madagascar towards the end of the dekad is expected to drag Congo air mass through the southern part of the country and therefore increased activities are expected along this region at the end of the dekad.

EXPECTED WEATHER SITUATION DURING JANUARY 21-31, 2011

Lake Victoria Basin (Kagera, Mara, Shinyanga and Mwanza regions) is expected to get isolated showers and thunderstorms. Over **Western region** (Tabora and Kigoma regions), **Southern Coast** (Mtwara and Lindi regions), **Southwestern highlands** (Rukwa, Mbeya and Iringa regions and northern Morogoro (Mahenge areas) and **Southern region** (Ruvuma region) are expected to experience isolated thundery showers becoming scattered during the second half of the dekad. **Northern coast and its hinterlands** (Dar es Salaam, Morogoro, Tanga and Coastal regions, Zanzibar and Pemba Islands) and **North-eastern Highlands** (Arusha, Kilimanjaro and Manyara regions) are expected to feature isolated rain-showers. **Central Region** (Dodoma and Singida regions): Isolated rain showers are expected with cases thunderstorms.

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