TANZANIA METEOROLOGICAL AGENCY

DEKADAL WEATHER REVIEW

No: 15 2010/11 Cropping Season January 21-31, 2011

HIGHLIGHTS

During the period soil moisture supply was deficient over most parts of the country causing adverse effects to field crops and other farm activities.

SYNOPTIC SITUATION

During the period under review, the northern hemisphere high pressure cells, the Siberian high and its associated Arabian ridge continued to intensify, pushing the zonal arm of the Inter-tropical Convergence Zone (ITCZ) further south of Tanzania. Similarly, the Azores high intensified in the first half of the dekad and slightly pushed the meridional arm of the ITCZ towards the western part of the country. Generally, the meridional arm of ITCZ was confined over the western part of the country throughout the dekad. The Southern hemisphere high pressure cells, St. Helena high remained slightly weak throughout the dekad while the Mascarene high was relatively strong at the beginning of the dekad and weakened towards the end of the dekad enhancing the persistence of the deep low pressure cell that developed from Mozambique through Madagascar. The persistent low-pressure cell over the Mozambique Channel coupled with a strong Arabian ridge created a tight pressure gradient which caused fairly strong winds of up to 50 km/hr along the entire coastline and the hinterland to northeastern highlands and Isles of Zanzibar and Pemba. These winds were relatively dry and therefore resulted in generally dry conditions with slight activities observed during the dekad. Generally local scale phenomena may also have accounted for the little activities that were observed during the dekad.

RAINFALL SUMMARY

During the third dekad of the month, rainfall activities decreased over much of the country, where the highest rainfall amount recorded was 73.0 mm at Uyole in Mbeya region, followed by Igeri 65.8 mm, Mbeya (58.3 mm), and Songea (54.8 mm). The rest of the country was generally dry with rainfall not exceeding 40 mm as shown in Fig 1.

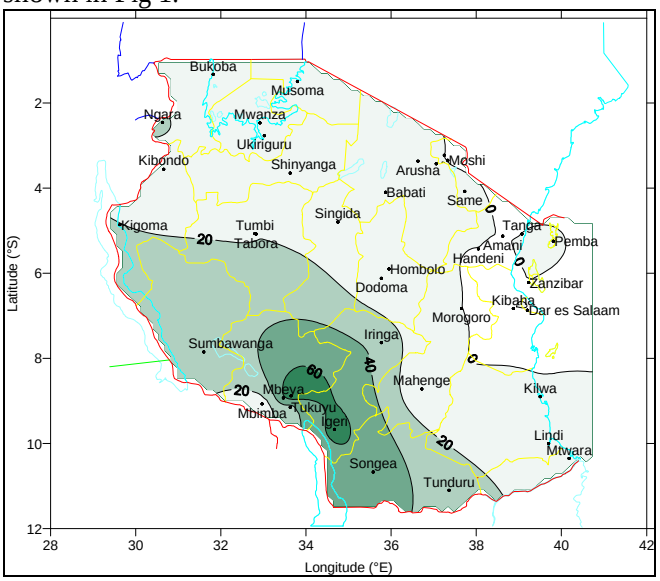

Fig. 1: January 21-31, 2011 Rainfall Distribution (mm)

IMPACT ASSESSMENT

Agrometeorological and Crop Summary

During the period soil moisture supply was observed to decrease over most parts of the country causing adverse effects to field crops and other farm activities including land preparation, planting and weeding as experienced over most parts of the country notably in unimodal areas. Ifakara and Ilonga areas in Morogoro region were largely dominated by land preparations following continued dry conditions experienced during the period. Over some areas particularly in the bimodal sector the obtained low levels of soil moisture were helpful mainly for land preparations aimed at preparation for the coming long rains season, *Masika*. The impeded crops

reported at vegetative stage over northern coast mainly Tanga region (Pangani and Handeni districts) never recovered, in northeastern highlands particularly Lyamungo and Same district (lowland) and in crops wilted permanently. Late planting and replanting of crops during the period were experienced mainly over southern coast particularly Lindi region following prolonged inadequate soil moisture supply, which condition has spread over several areas of the sector. Generally, field crops ranged between poor and moderate state.

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 decreased, thus 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 FEBRUARY 1-10, 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 at the beginning of the dekad and gradually continue intensifying before collapsing slightly towards the end of the dekad. The Siberian high and the associated Arabian ridge are expected to remain strong in the beginning of the dekad.

The meridional arm of the ITCZ is expected to oscillate between the Congo basin and the western part of country; the zonal arm of the ITCZ is expected to remain south of the country, but will migrate into the southern parts of the country towards the end of the dekad. The low level wind flow is expected to be mainly northeasterly over the larger part of the country but northwesterly along the southeastern part of the country and easterly along the southwestern part of the country especially towards the end of the dekad. A diffluent flow along the central and southern parts of the country is likely. However, the migration of the ITCZ northwards is expected to slightly increase rainfall activities along the southern sector of the country.

EXPECTED WEATHER SITUATION DURING FEBRUARY 1-10, 2011

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

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