TANZANIA METEOROLOGICAL AGENCY

DEKADAL WEATHER REVIEW

No: 13 2010/11 Cropping Season January 1-10, 2011

HIGHLIGHTS

Favorable but late soil moisture supply was experienced mainly over unimodal sector enhancing field activities including land preparation and planting

SYNOPTIC SITUATION

During the first dekad of January 2011, 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) over southern sector of the country, while the Azores high slightly intensified pushing the meridional arm of ITCZ to the west of the country particularly towards the end of the dekad. The Southern hemisphere high pressure cells, St Helena and Mascarene anticyclones remained slightly weak. The dominant low level wind flow was easterly from the Indian Ocean and moist westerly from Congo Basin contributing to wind convergence over much of the country. These wind patterns were conducive for rainfall and thunderstorm activities over some areas of the country.

RAINFALL SUMMARY

During the dekad rainfall activities were experienced mainly over the unimodal areas where rainfall amounts exceeded 40 mm for the period as depicted in Figure 1. The highest rainfall for the period was recorded at Mahenge (137.2 mm), followed by Hombolo (88.5 mm), Amani (84.9 mm), Lyamungo (75.7 mm), Bukoba (73.8 mm), Ifakara (69.6 mm), Songea (64.5 mm), Mbozi (62.1 mm), Singida (57.3 mm), Handeni (56.4 mm), Uyole (54.8 mm), Igeri (48.8 mm), Tukuyu (47.5 mm), Dodoma (47.1 mm), Kibondo (45.9 mm), Morogoro (42.8 mm), Iringa (37.2 mm), Tabora (33.8 mm), Sumbawanga (26.6 mm) and Tumbi (20.7 mm) and pockets of rainfall amounts below 10 mm.

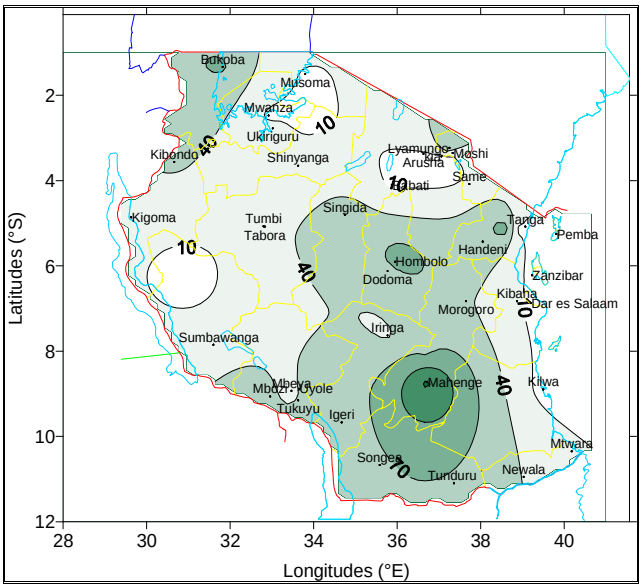

Figure1: January 1-10, 2011, Rainfall distribution

IMPACT ASSESSMENT

Agrometeorological and Crop Summary

Favorable but late soil moisture supply was experienced mainly over unimodal sector enhancing field activities including land preparation and planting. For the water stressed crops over some areas particularly in bimodal sector the soil moisture obtained was somewhat helpful for the revival of the impeded crops generally reported at vegetative stage as observed

over northeastern coast mainly Pangani and Handeni districts. The same was reported in northeastern highlands mainly Same (lowland) where the season proved so poor, just like for beans crop in Biharamulo district where it was adversely affected and never recovered again. Crop replanting was carried out over several areas of the sector following permanent wilting of the crops at vegetative stage due to short supply and 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 11-20, 2011

Southern hemisphere systems, the St Helena and Mascarene highs are expected to remain slightly weak due to the warming expected over southern Indian Ocean. In the northern hemisphere, the Azores high is expected to intensify slightly while Siberian high and the associated Arabian ridge are likely to continue intensifying.

The meridional arm of the ITCZ is expected to remain closer to the western half of the country, while the zonal arm of the ITCZ is expected to continue oscillating south-north over the southern regions. The orientation of meridional component of ITCZ is expected to give chance of low level moist wind (westerlies and easterlies) convergence over the country.

EXPECTED WEATHER SITUATION DURING JANUARY 11-20, 2011

Lake Victoria Basin (Kagera, Mara, Shinyanga and Mwanza regions): Light to Moderate rain-showers and thunderstorms are likely over few areas. Western region (Tabora and Kigoma regions): Moderate thundershowers are expected over few areas. Northern coast and its hinterland (Dar es Salaam, Morogoro, Tanga and Coastal regions, Zanzibar and Pemba Islands): Light to moderate rain-showers are expected over some few areas. Southern Coast (Mtwara and Lindi regions): Light rain showers and thunderstorms are expected over few areas. North-eastern Highlands (Arusha, Kilimanjaro and Manyara regions): Mainly light showers conditions over some areas are expected with pockets of thunderstorms at the beginning of the dekad. Southwestern highlands (Rukwa, Mbeya and Iringa regions and northern Morogoro (Mahenge areas): Moderate rain-showers and thunderstorms are expected over some areas reducing towards the end of the dekad. Southern region (Ruvuma region): Moderate rain-showers and thunderstorms over some areas are expected, reducing towards the end of the dekad. Central Region **(**Dodoma and Singida regions): Moderate rain-showers and thunderstorms are expected towards the end of the dekad.

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