TANZANIA METEOROLOGICAL AGENCY

DEKADAL WEATHER REVIEW

No: 13 2011/12 Cropping Season — January 1-10, 2012

HIGHLIGHTS

- Soil moisture supply during the period was sufficient for crop growth and development mainly over unimodal sector and denoted normal falling trend in bimodal sector.
- Improvement on pastures was evident as well as water availability to most areas across the country.

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SYNOPTIC SITUATION

During the first dekad of January, 2012, the northern hemisphere high pressure cells, the Azores high, Siberian high and its associated Arabian remained intense. This maintained the rain-making mechanism i.e. Inter-Tropical Convergence Zone (ITCZ) in the south. The southern hemisphere high pressure cells, St Helena was relatively strong, while the Mascarene high was relatively weak during the dekad. Cool Sea Surface Temperature (SSTs) conditions have been established over the Equatorial central-eastern Pacific, while neutral to slightly warm SSTs were observed over eastern Indian Ocean (areas around Indonesia) and central equatorial Indian Ocean. Northeasterly and occasionally northwesterly low level winds prevailed over eastern parts of the country during much of period. Westerly winds observed during the dekad resulted to convergence over the eastern part of the country which led to enhanced activities over the southwestern highlands, west, central, some parts of northeastern highlands and northern coast. During the dekad a tropical disturbance *CHANDA* (with a central pressure 1004 hpa) was observed over the Mozambique Channel which resulted to enhancement of rainfall activities over the southern sector of the country.

RAIFALL SUMMARY

The dekad under review experienced relatively decreased amounts of rainfall over several parts of the county mainly the bimodal sector which signifies the falling trend of `*Vuli*` season. On the other hand, over unimodal sector wet conditions prevailed over much of the sector. The leading total amount for the dekad was obtained at Mahenge 220.1mm, followed by Songea 101.2 mm, Mtwara 91.3 mm, Kilwa Masoko 82.2 mm, Naliendele 64.3 mm, Hombolo 63.7 mm, Mbimba 59.1 mm, Sumbawanga 48.2 mm, Dodoma 47.6 mm, Tukuyu 45.6 mm, Igeri 44.3 mm, Tabora 37.1 mm, Singida 34.1 mm, and Uyole 32.1 mm. Remaining stations mostly from bimodal areas where the season was coming to an end recorded less rainfall (below 30 mm) as depicted in Figure 1 below.

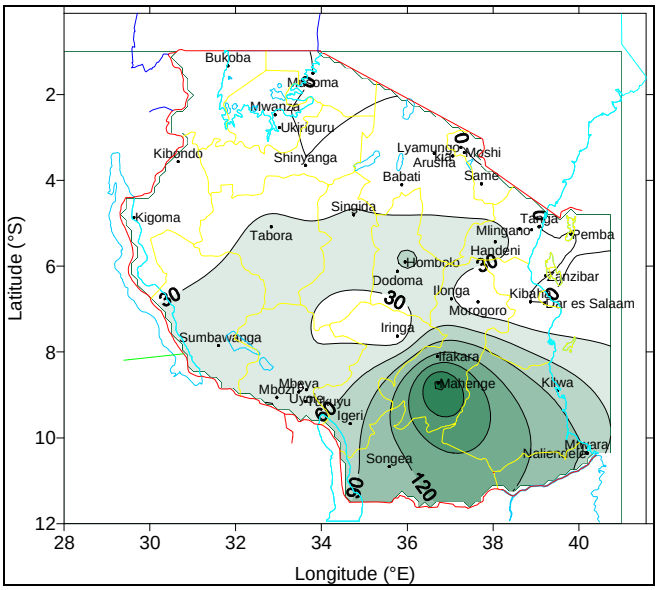

Fig 1: January 1-10, 2012 Rainfall distribution (mm)

IMPACT ASSESSMENT

Agrometeorological and Crop Summary

Soil moisture supply during the period was sufficient for crop growth and development over most parts of the country mainly in the unimodal sector where crops were progressing well at various

phases. Crops such as maize, beans, sorghum and paddy over unimodal sector were at stages ranging from early to mid vegetative stage, whereas in bimodal sector the stages advanced farther to harvesting maturity stage as reported from Kagera, Mara, and Tanga regions. For crops like wheat in southwestern highlands (Mbeya and Iringa regions) and paddy in northern coast particularly Coast region were still in the preparation for planting sometime later. However, few areas mainly the low grounds that experienced prolonged soil moisture deficits from mid stage of the crops encountered negative effect on crops at later stages mainly experienced around areas of Moshi, Same, Korogwe and Handeni districts where the improved soil moisture supply during the dekad hardly revived the hampered crops. Improvement on pastures was evident as well as water availability to some areas across the country.

Hydro-meteorological Summary

Water levels in lakes, dams and river flow discharges were moderately increased.

Environmental Summary

Temperatures mostly over high ground areas in the country were fairly cool, while the coastal belt and inland areas were relatively warm.

EXPECTED SYNOPTIC SYSTEMS DURING JANUARY 11-20, 2012

The Azores and Siberian High together with the associated Arabian ridge are expected to continue intensifying. St. Helena high is expected to become strong thus pushing the meridional component of the ITCZ towards the western part of the country.

The Mascarene high is expected to become slightly weak. Slight warm Sea Surface Temperatures (SSTs) are expected to prevail over the southwestern Indian Ocean. The above configuration is expected to result into the penetration of westerly winds over the western towards the central part of the country. On the other hand north-easterly to northwesterly winds are expected to continue prevailing over the eastern sector of the country, resulting into convergence over eastern half of the country.

EXPECTED WEATHER DURING JANUARY 11-20, 2012

Rainfall is expected to continue over unimodal areas and out of seasonal rains is expected over the bimodal areas. Lake Victoria Basin (Kagera, Mwanza, Mara, and Shinyanga regions): These areas are expected to experience normal rains. Western regions (Kigoma, Rukwa and Tabora regions): These areas are expected to experience normal to above normal rains. Northern coast (Dar es Salaam, Morogoro and Tanga regions, the isles of Unguja and Pemba): The areas are expected to experience normal rains. Central areas (Dodoma and Singida regions): Are expected to feature normal to above normal rains. Northeastern highlands (Kilimanjaro, Arusha and Manyara regions): These areas are expected to experience normal rains. Southwestern highlands (Southern Rukwa, Iringa and Mbeya region): These areas are expected to experience normal to above normal rains. Southern coast (Mtwara and Lindi regions): These areas are expected to feature normal to above normal rains. Southern region (Ruvuma region): Is expected to feature normal to above normal rain

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