TANZANIA METEOROLOGICAL AGENCY

SEASONAL WEATHER FORECAST

No. 9 Special Issue: **October -December 2013 2012 Season** **Issued on 6th September 2013**

SUMMARY

This statement gives a brief review of the performance of rainfall for March to May 2013 rainfall season, evolution of the climate systems and outlook for the October to December 2013 rainfall season, and advisories on the likely impacts. Outlook for October to December (OND), 2013 rainfall season indicates that the country is expected to receive normal rains except for much of Shinyanga, Mwanza, Simiyu, Manyara, Katavi, Southern Kigoma, Western Rukwa, northern Tabora, northern Singida, Dodoma, Dar es Salaam, Tanga, Southern parts of Arusha, Kilimanjaro, extreme northern Morogoro, Unguja, Pemba, parts of Lindi, and Coast regions which are expected to receive mainly below normal rainfall, thus farmers are advised to grow quick maturing and drought resistant crops. Those over areas expected with normal rainfall are advised to go for a normal cropping season and practice soil moisture management.

RAINFALL PERFORMANCE

During the long rain season of March to May 2013, most parts of the country experienced normal rainfall with pockets of above normal rainfall over Tabora, Rukwa, Mara, Manyara and Singida regions. There were also some pockets below normal rainfall in Iringa, Ruvuma, Kilimanjaro and most parts of the coastal areas.

EXPECTED CLIMATE SYSTEMS AND WEATHER DURING OCTOBER - DECEMBER 2012

Expected Climate Systems during October-December 2012

Observed and predicted SST anomalies over the Tropical Pacific, Indian and Atlantic Oceans were analyzed. Other factors such as atmospheric circulation processes that bring moisture into the region were considered. During the October to December, 2013 rainfall season, neutral to slightly cool SSTs anomaly is expected over the central Equatorial Pacific ocean. Neutral to slight warming SST over eastern Indian Ocean (Indonesia) coupled with slight cooling over Western Indian Ocean (East African Coast) during the months of October to November, 2013 indicates a mild negative Indian Ocean Dipole during the period. The expected SST over the western Indian Ocean (East African coast) during the months of October to November, 2013, are expected to trigger weak north-easterly winds over most parts of the country which are likely to be associated with less moisture influx. However, towards the end of November through December, 2013 slightly warmer SST over western Indian Ocean are expected to enhance easterly to north-easterly winds thereby resulting into moisture influx towards the country. Llikelihood of increased warming across much of the south-western Indian

Ocean during the month of November and December, 2013 is likely to trigger occurrence of tropical cyclones over the south-western Indian Ocean. During October to December, 2013 suppressed westerly wind flow is likely over much of the eastern Congo basin thereby reducing moisture influx towards western parts of the country.

RAINFALL OUTLOOK DURING OCTOBER - DECEMBER 2012

From the prevailing climate systems explained above, the October to December, 2013 rainfall season as shown in Figure 1 is expected to be as follows.

i. Short Rainfall Season (Vuli) over Bimodal areas

The October to December rainfall season (Vuli) is more significant for the northeastern highlands, northern coast areas, Lake Victoria Basin and northern Kigoma. The rains are expected to be below normal over the northern coast (Dar es Salaam, Northern Morogoro, Coastal regions , including Unguja and Pemba isles), western areas (Tabora and Kigoma), parts of Lake Victoria basin (Mwanza, Simiyu and Shinyanga regions) and much of northeastern highlands (Manyara and Kilimanjaro regions), On the other hand, the Lake Victoria Basin (Kagera Geita and Mara regions), northern Kigoma, and northern parts of Arusha and Kilimanjaro regions the rains are likely to be normal. The onset of the short rainfall season (Vuli) is expected to commence in September 2013 over Lake Victoria Basin and gradually spreading to other areas. However, late onset of the rains is likely to occur over some areas in the northern coast and parts of northeastern highlands.

Lake Victoria Basin: (Kagera, Mara, Mwanza, Geita, Simiyu and Shinyanga regions): Rains are expected to start during the second week of September, 2013 over Kagera region and northern Kigoma areas and gradually spreading to Mwanza, Shinyanga, Mara, Geita and Simiyu regions during the third week of October, 2013. The rains are expected to be normal over Kagera, Geita, and Mara and northern parts of Kigoma region while Shinyanga, and Simiyu regions the rains are expected to be below normal. **Northern coast areas and hinterlands: (Dar es Salaam, Tanga, and Coast regions, extreme northern Morogoro areas and Isles of Unguja and Pemba):** Rains are expected to commence in the third week of October, 2013 and are likely to be below normal over most areas. **North-eastern highlands: (Kilimanjaro, Arusha and Manyara regions):** Rains are expected to commence in the first week of November, 2013 and are likely to be below normal over much of Kilimanjaro and Manyara regions and southern parts of Arusha region. However, northern parts of Arusha and Kilimanjaro regions are likely to experience normal rains.

ii. Seasonal Rainfall (November to April) over Unimodal areas

The November to April rainfall season is more significant for the western, central, southwestern highlands, southern region and southern coast. The rains are likely to be normal over most areas during the months of November to December 2013.

Western areas: (Tabora, Rukwa, Katavi and Kigoma regions): Rains are expected to start in the fourth week of October, 2013 over Kigoma and in the third week of November, 2013 over Tabora, Rukwa and Katavi regions. The rains are expected to be normal over southern Tabora and eastern Rukwa. Katavi, southern Kigoma, western Rukwa and northern Tabora regions are expected to experience below normal rains. **Central (Singida and Dodoma regions):** Rains are expected to start during the second week of December, 2013 and are expected to be normal over southern parts of these regions, with high chance of below normal rains over northern parts of Singida and Dodoma regions. **Southwestern highlands: (Mbeya, Iringa, and Njombe regions and southern Morogoro areas):** Rains over these regions are expected to start during the fourth week of November, 2013. The rains are expected to be normal over most areas. **Southern region and Southern Coast: (Ruvuma, Mtwara and Lindi regions):** Rains are expected to start during the fourth week of November, 2013 and are expected to be normal over most areas, with moderate chance of below normal rains over northern parts of Lindi region.

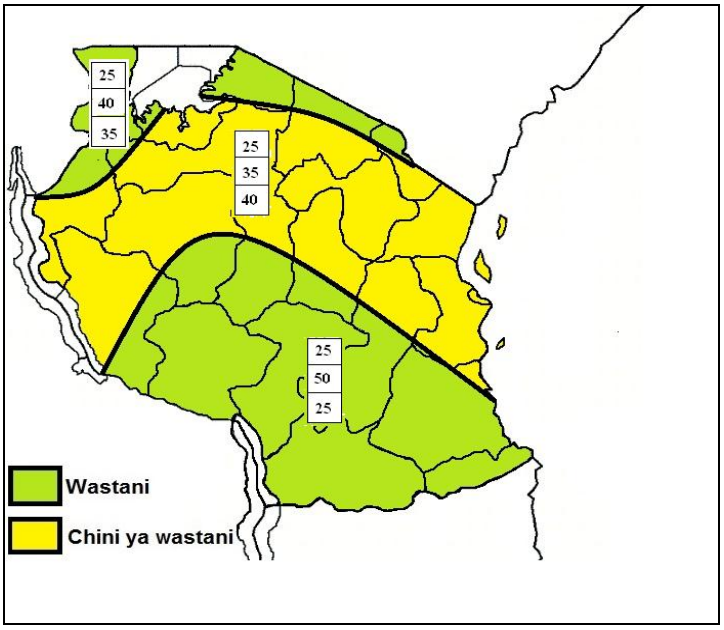

Fig. 1: Rainfall outlook for October to December, 2012

IMPACTS AND ADVISORY

Agriculture and Food Security

Deficient soil moisture conditions are expected over some areas of Mwanza, Simiyu, Shinyanga, Manyara, southern Kilimanjaro and Arusha regions, northern coast (Dar es Salaam, Tanga, and Coast regions, Islands of Unguja and Pemba and northern Morogoro regions). Farmers in these areas are advised to plant early maturing and drought tolerant crops, and where possible water harvesting techniques are encouraged to salvage little water likely to be available. On the other hand, famers over areas anticipated to receive normal rainfall in Kagera, Geita, and Mara regions, northern parts of Kigoma, Arusha and Kilimanjaro regions are advised to finalize land preparations, acquire farm inputs and go for a normal cropping season. Adequate soil moisture conditions is likely over larger parts of unimodal rainfall areas; Mbeya, Iringa, Njombe, Ruvuma, Lindi, Mtwara, Katavi and southern parts of Tabora, Singida, Dodoma and Morogoro. Farmers in these areas are advised to continue with land preparations, acquisition of farm inputs, and plant as soon as the rains start. However, farmers over northern parts of Dodoma, Singida, Tabora, Katavi, Rukwa and parts of

Kigoma should anticipate deficit soil moisture particularly between November and December 2013. Farmers are strongly advised to seek and obtain professional guidance from extension officers.

Pastures and Water for Livestock

The condition of pastures and water availability for livestock is anticipated to improve earlier over places that receive *vuli* rains. However, areas expected to receive below normal rainfall are also characterized by livestock activities and constitute large number of national parks and game reserves as a result pasture and water availability is likely to be insufficient. Thus pastoralists are advised to use available pastures sparingly and harvest their livestock when they are in good condition to enable them get reasonable prices and ease restock. Wildlife Authorities are also advised to take necessary measures.

Water and Energy

Water levels in Dams, Lakes and Rivers over areas expected to receive below normal rainfall are likely to have no significant improvement. However, areas where normal rainfall is expected water levels in Dams, Lakes and Rivers are likely to improve. Thus, cautious use of water is recommended so as to sustain livelihood and meet other social economical demands.

Health

There is a likelihood of outbreaks of water borne and water related diseases such as malaria epidemic and cholera in areas expected to receive below normal rains. Thus, necessary precautions are encouraged.

Local Authorities

Episodes of heavy rainfall can be experienced even in areas where below normal rainfall is expected. Thus Municipals and city council are advised to open up and clear drainage systems to avoid water accumulation due to surface runoff so as to reduce the impacts of heavy rains that may results into floods.

Disaster Management

The disaster management authorities and other stakeholders are advised to take necessary measures that would ensure preparedness, response, and mitigation of any negative impacts resulting from expected weather conditions.

Media

All media houses are encouraged to seek, obtain and disseminate authentic weather and climate information issued by Tanzania Meteorological Agency (TMA). User community is also advised to make follow up on weather and climate information and updates issued via various media houses and make optimal use of it.

The Agency strongly advices all users including agriculture, food security, livestock, wildlife, water resources, health sectors, etc to seek more advice from experts in their respective sectors.The rainfall season over the Unimodal areas is expected to begin in November 2013 and ends in April 2014 thus updates for the remaining part of the season over these areas will be issued in January 2014. Moreover, Tanzania Meteorological Agency will continue to monitor the evolution of weather systems including tropical cyclones and issue updates and relevant advisories and guidance regularly.

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