

### Summary

- ❖ This bulletin gives a summary of evolution of the climate systems, outlook for the March to May (*masika*), 2017 rainfall season, impact and advisories to Agriculture and food security, Livestock and Disaster Management.
- ❖ The March to May (*masika*), 2017 rains are expected to be mainly normal over most areas of the country. However, there is likelihood of normal to below rainfall with long dry spells over north-eastern highlands (Arusha, Kilimanjaro and Manyara) and northern coast (Morogoro, Pwani, Dar es Salaam, Tanga and Isles of Unguja and Pemba).
- ❖ The ongoing rains over few areas of the Lake Victoria Basin and northern coast are expected coincide with the commencement of the *masika* rains in the first to second week of March, 2017.
- ❖ Meanwhile, the seasonal rains over the unimodal areas which started in November 2016 are expected to progress well whereby normal to above normal rains are expected over some areas (Dodoma, Singida, Kigoma, Tabora, Rukwa, Katavi, Mbeya and Iringa) while above normal rains are expected over Njombe, Ruvuma, Lindi, Mtwara and southern parts of Morogoro (Mahenge), with a likelihood of prolonged seasonal rains over some areas.

### CLIMATE SYSTEMS OUTLOOK DURING MARCH TO MAY, 2017

The observed gradual warming over Central Equatorial Pacific Ocean is likely to persist through the season resulting to neutral Sea Surface Temperatures (SSTs) for the months of March to May 2017. A gradual warming condition is also expected over the entire tropical Indian Ocean. Moreover, enhanced warming conditions across the south-western Indian Ocean during the months of March to May, 2017 are likely to enhance occurrence of tropical cyclones during the season. Slight cooling over south-east Atlantic Ocean near Angola coast, particularly during the months of April to May 2017 is likely to enhance westerly wind flow from Congo Basin towards the country resulting into moisture influx into the country.

### RAINFALL OUTLOOK DURING MARCH TO MAY, 2017

The March to May (*Masika*) rainfall season is more significant for the bimodal areas which include north-eastern highlands, northern coast (including the Isles of Unguja and Pemba), Lake Victoria Basin and the northern parts of Kigoma region. The rains are expected to feature as depicted in Figure 1. The details for different areas of the country are as follows:

#### (a) March to May (*Masika*) seasonal rains over bimodal areas

The ongoing rains that have started over some parts of the Lake Victoria Basins and northern coast are expected to coincide with seasonal rains and spread over the remaining parts of the bimodal areas during the first to second week of March, 2017. Dry spells are likely to dominate over some areas of northern coast and north-eastern highlands particularly during the month of March, 2017. The *Masika* rains are likely to be influenced by the expected occurrences of Tropical Cyclones over the Indian Ocean.

**Lake Victoria Basin: (Kagera, Mara, Mwanza, Geita, Simiyu and Shinyanga regions):** Rains that have started over Kagera and Mwanza regions are expected to coincide with the onset of *masika* rains and spread over the remaining to other regions of Geita, Mara, Simiyu and Shinyanga regions during the first to second week of March 2017. The rains are expected to be normal to above normal over Kagera, Mwanza, Simiyu, Shinyanga and Geita regions.

**Northern Coast areas and its Hinterlands: (Dar es Salaam, Tanga, and Coast regions, Islands of Unguja and Pemba and northern Morogoro areas):** Ongoing rains that started over few areas of Dar es Salaam and Pwani regions are expected to coincide with the start of *Masika* rains in the first to second week of March, 2017. The rains are expected to be normal to below normal with likelihood of long periods of dry spells.

**North-eastern Highlands: (Kilimanjaro, Arusha and Manyara regions):** Rains are expected to start over most areas in the first to second week of March 2017 and are likely to be normal to below normal over most areas with likelihood of dry spells over few areas.

**(b) Seasonal Rains (November to April) over unimodal areas**

The rainfall season over the unimodal areas (which include western regions, central areas, south-western highlands, southern region and southern Coast) started since November, 2016 and is progressing well over most areas. The rains over most parts of these areas are expected to be mainly normal to above normal. However, above normal rains are expected over Njombe, Songwe, Ruvuma, Mtwara, southern part of Morogoro (Mahenge) and southern Lindi regions as shown in Figure 1. There is likelihood of late cessation of the ongoing seasonal rains over some parts of the unimodal areas. The rains over the unimodal areas are expected to feature as follows:

**Western areas (Tabora, Rukwa, Katavi and Kigoma regions):** The overall rainfall performance is expected to be normal to above normal over most parts of the regions. The rains are expected to end earlier during the second to third week of April 2017.

**Central (Singida and Dodoma regions):** Rains are expected to be normal to above normal over most parts of the region. The rains are expected to end during the second to third week of April, 2017.

**Southwestern highlands: (Mbeya, Songwe, Iringa, and Njombe regions and southern Morogoro areas):** Rains are expected to be normal to above normal over most parts of the region during the remaining period with high chance of above normal rainfall over Songwe, Njombe, and southern Morogoro areas. The rains over these areas are expected to end during the fourth week of April, 2017.

**Southern Region and Southern Coast: (Ruvuma, Mtwara and Lindi regions):** Rains are expected to be above normal-to-normal over most parts except for northern part of Lindi region where normal to above normal rains are expected. The rains are expected to end during the fourth week of April to first week of May 2017.

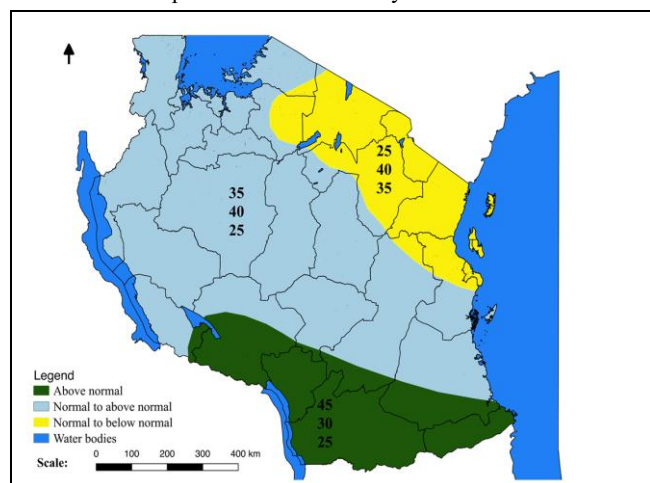


Figure 1: Rainfall outlook for March to May (masika) rain season



**Agriculture, Food Security and Livestock Production**

Soil moisture levels are likely to improve slightly for crop and pasture production. However, the likelihood of below normal rainfall associated with long dry spells over some of the bimodal areas may affect crop performance. Pastoralist should be sensitized to harvest their cattle while in good condition and to keep livestock according to the carrying capacity. Both farmers and livestock keepers are advised to seek more advice from agricultural and livestock extension officers in their areas.

**Disaster Management**

Disaster management authorities and other stakeholders are advised to take necessary measures such as good practice of environmental conservations and ensure preparedness, response, and mitigation plans are in place to reduce any negative impacts that may result from the expected rainfall.

**NOTE:** The current status of seasonal forecasting allows for prediction of spatial and temporal averages over larger areas and may not fully account for all physical and dynamical factors that influence short-term climate variability. Tanzania Meteorological Agency (TMA) will continue to monitor developments of the weather systems and issue updates whenever appropriate. Users of this outlook are therefore urged to make good use of daily, ten day and monthly updates issued by TMA. TMA also advises farmers, and pastoralists to continue seeking and utilizing advice from experts in their localities.