No. 21 Special Issue: March to May (MAM), 2019 Rainy Season

Forecast issued on 15 February, 2019

#### **Summary**

- March to May (MAM) rainfall season (Masika rains) is significant for the bimodal rainfall regime areas.
- Earlier onset and cession of the Masika rains are generally expected with occasional short periods of heavy rains during the season.
- Masika rains are likely to be normal to above normal over most areas of the bimodal parts of the country.
- Sufficient pasture and water for livestock is expected, thus minimal conflicts between farmers and pastoralists is likely.

### CLIMATE SYSTEMS OUTLOOK DURING MAM, 2019

Warmer than average Sea Surface Temperatures (SST) currently observed over southwest and central Indian Ocean are likely to persist through March-April-May period. This is expected to lead to weaker easterly wind flow along the coast, reducing rains over these areas. However, the observed and the expected warming is likely to influence the occurrences of tropical cyclones over the southwest Indian Ocean. On the other hand, near average temperatures expected over the southeast Atlantic Ocean (off Angola Coast) are likely to slightly weaken moist westerly winds from Congo Basin. Otherwise, despite warmer than average conditions over the Central Equatorial Pacific Ocean, no significant response to the climate and rainfall pattern of the region is expected during March-April-May 2019 period.

### SEASONAL RAINFALL OUTLOOK DURING MAM, 2019

The March to May (MAM) rain season (Masika) is of more importance over bimodal rainfall areas (Lake Victoria Basin, northeastern highlands, northern coast, and Kibondo district). Earlier onset and cession of the Masika rains are generally expected with occasional short periods of heavy rains during the Masika, 2019 rain season.

Normal rains are expected over most areas of the Bimodal during the Masika season. However, some areas of northeastern highlands are

more likely to receive normal to above normal rains while few areas of the western Lake Victoria Basin are likely to feature normal to below normal rains.

### Lake Victoria Basin: (Kagera, Mara, Mwanza, Geita, Simiyu and Shinyanga regions):

Rains are expected to start during the fourth week of February in Kagera region, spreading to Mwanza, Geita, Mara, Simiyu and Shinyanga regions during the second week of March, 2019. The rains are expected to be normal to above normal over Mwanza, Geita, Shinyanga, Simiyu and Mara regions. Otherwise, suppressed rains may occur over few areas of Kagera region and Kibondo.

# Northern Coast areas and its Hinterlands: (Dar es Salaam, Tanga, and Pwani regions, Islands of Unguja and Pemba and northern sector of Morogoro region):

Rains are expected to commence between the fourth week of February and first week of March, 2019 over Dar es Salaam and Coast regions as well as Unguja and Pemba Isles, spreading to Tanga and northern Morogoro during the first week of March, 2019. The rains are expected to be normal to above normal.

## Northeastern Highlands: (Kilimanjaro, Arusha and Manyara regions):

Rains are expected to commence during the fourth week of February, 2019 and are likely to be above normal to normal over most of Kilimanjaro, Arusha and northern areas of Manyara regions. Otherwise, most of remaining areas of Manyara regions are likely to feature normal rains.

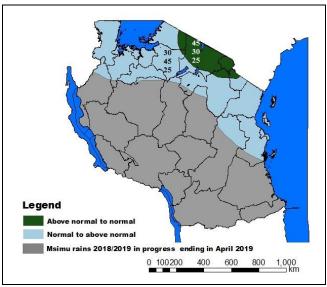


Figure 1: Rainfall outlook for coming rainfall season March to May, 2019.

# EXPECTED IMPACTS AND ADVISORY DURING MAM, 2019

### Agriculture, Fishing Industry, Livestock and Wildlife Production

In areas expected to receive above normal to normal rains, particularly those in the northeastern highlands (Arusha and Kilimanjaro regions), the rains are expected to favour production of crops which are adaptive to excessive soil moisture. However, vegetables production may be affected.

Fishery sector in these areas can also be impacted due to possible excessive water levels in fish production dams and therefore fish farmers are advised to improve their dam infrastructure. As for areas where normal to above normal rains are expected, favorable conditions for normal cropping practices are anticipated. On the other hand, sufficient pasture and water for livestock keeping is expected.

Livestock keepers are advised to practice good animal husbandry and harvest rainwater and pasture for immediate and future use. Users are advised to seek more information including advice from the extension officers.

#### Water

Sufficient water availability is likely, especially in areas expected to receive above normal to normal rains. Water levels over the dams and rivers are likely to significantly improve. Farmers and livestock keepers are advised to harvest rainwater for future use.

#### **Disaster Management**

Due to expected enhanced rains over most of the areas, flooding and other negative impacts associated with heavy rains may cause damage to houses, infrastructure and property leading to injury and loss of lives. Thus, disaster management authorities, humanitarian responders and other stakeholders are advised to take necessary mitigation measures to ensure preparedness for effective response to address potential negative impacts.

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. Users of this outlook are, therefore urged to make good use of daily, ten day and monthly updates issued by the Tanzania Meteorological Agency.