TANZANIA METEOROLOGICAL AUTHORITY

SEASONAL WEATHER FORECAST

No. 28 Special Issue: March-May (MAM) 2022 Rainy Season ***Issued on 17th February, 2022***

Summary

- March to May (MAM, 2022) rainy season '***Masika****'* is more significant for the bimodal rainfall regime areas
- Normal to above normal rains are expected over many areas of bimodal rainfall pattern
- Periods of enhanced rainfall are expected during March 2022 over the northern coast and April 2022 over north eastern highlands
- The ***Masika*** rain season is likely to be characterized by early onset in the third and fourth weeks of February 2022 and cease in May 2022
- Soil moisture and water for irrigation are expected to increase to the level of meeting the needs of agriculture, livestock and wildlife.
- Incidence of pest outbreaks may occur due to elevated moist conditions and waterlogging condition
- Floods, damage to infrastructure, loss of property and life, disease outbreaks and other effects of heavy rainfall can occur.

CLIMATE SYSTEMS OUTLOOK DURING MAM, 2022

Normal to slight cool Sea Surface Temperatures (SST's) are expected over the Central Equatorial Pacific Ocean while normal SSTs are expected over Indian Ocean. However, the southwest Indian Ocean SSTs are expected to be slightly warmer than normal especially during the first half of the season and hence elevating chances of occurrence of deep low pressure systems along the Mozambique Channel. This condition is expected to enhance rainfall making mechanisms over the Lake Victoria basin and the northeastern highlands. The SST over the eastern coast of the Atlantic Ocean (off Angola coast) are expected to be slightly cool. This is likely to enhance the rainfall making mechanisms over the Lake Victoria Basin.
Wind vectors during MAM 2022 suggest less directional wind shears along northern coast and northeastern highlands. This situation is expected to enhance the strength of rainfall making mechanism including the ITCZ over those areas.

SEASONAL RAINFALL OUTLOOK DURING MAM, 2022

The *Masika* rainy season is specific for areas of the northeastern highlands (Arusha, Manyara and Kilimanjaro regions), northern coast (northern part of Morogoro region, Coast including Mafia Island, Dar es Salaam and Tanga regions, Unguja and Pemba islands), Lake Victoria basin (Kagera, Geita, Mwanza, Shinyanga, Simiyu and Mara regions) and the northern part of Kigoma region.
Based on the expected climate systems , generally, normal to above normal rains are expected over most parts of bimodal areas during the *Masika*, 2022 rainfall season. Periods of enhanced rainfall are expected during March over the northern coast and in April for the north eastern highlands area. The *Masika* rainy season is likely to be characterized by early onsets and is expected to start during the third and fourth weeks of February 2022 and cease in May, 2022

Lake Victoria Basin (Kagera, Geita, Mwanza, Shinyanga, Simiyu and Mara regions) and northern part of Kigoma region (Kakonko and Kibondo districts):
The *Masika* rains are expected to be normal to above normal over most parts of the LakeVictoria basin and northern part of Kigoma. The rains are expected to start during the third and fourth week of February, 2022. Cessation of these rains is expected during the second week of May for northern parts of Kigoma region and southern part of Lake Victoria Basin (Geita, Mwanza and Shinyanga regions). The rest of the Lake Victoria basin (Kagera, Simiyu and Mara regions) cessation is expected in the fourth week of May, 2022.

Northern Coastal areas and its Hinterlands: (northern part of Morogoro region, Coast including Mafia Island, Dar es Salaam and Tanga regions, Unguja and Pemba islands):
Rains are expected to be normal to above normal and are expected to start during the third and fourth week of February, 2022. Rainfall cessation is likely to be in the third week of May, 2022.

Northeastern Highlands: (Arusha, Manyara and Kilimanjaro regions)
Rains are expected to be normal to above normal and likely to start in the third week of February, 2022 and cessation is expected during the second and third week of May, 2022.

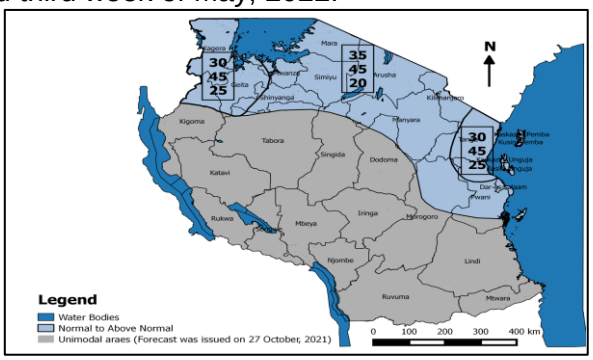

Figure 1: Rainfall outlook for MAM rainy season, 2022.

EXPECTED IMPACTS AND ADVISORY DURING

Agriculture and Food Security, Fishing, Livestock and Wildlife
Adequate soil moisture for crop growth and development, and water harvesting for irrigation purposes are expected over much of the bimodal areas due to expected normal to above normal rains. However, excessive rains may cause excessive soil moisture and hamper field crops that do not require much water, such as maize and leguminous crops. Farmers are advised to start land preparation and planting early, use appropriate soil management practices and technology to control soil erosion and nutrient loss, carry out crop and seed selection based on area and seasonal characteristics.
It is also advised to improve agricultural infrastructures to help minimize the negative impacts that may occur and control of pests and diseases such as fungal disease. Farmers are also advised to practice weeding on time and seek more professional advice from nearby agriculture extension experts. Pasture and water availability for livestock are expected to be sufficient over many areas. Furthermore, livestock pests and diseases associated with enhanced rains may occur during the season. Therefore, livestock keepers are advised to practice good animal husbandry such as rotational grazing in order to control pests, conserve pasture and harvest rainwater for future use.
Increase in water levels in lakes, rivers and dams are expected to contribute to the availability of food for fish production. Fishers are advised to strengthen fishing infrastructure, and seek advice and guidance from extension officers in their localities.

Water
Water levels in dams and river flow discharge are expected to increase. This condition may cause river overflow leading to flooding especially in flood prone areas. Water harvesting technologies are highly recommended for later use.

Disaster Management
Flooding, damage to infrastructures and properties leading to injury and/or loss of lives together with other negative impacts including disease outbreak associated with heavy rains may occur. Therefore, it is advised to disaster management authorities and committees at regional, district, ward and street/village levels to take necessary measures against negative impacts that may result from heavy rains. Furthermore, strengthening of disaster relief warehouses is required so as to minimize the anticipated impacts.

Note 1: ***It should be noted that most areas are expected to receive normal to above normal rains therefore events of heavy rains accompanied with strong winds are highly likely to occur.***

Note 2: ***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 bythe Tanzania Meteorological Authority (TMA).***

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