



UNITED REPUBLIC OF TANZANIA  
MINISTRY OF WORKS AND TRANSPORT  
TANZANIA METEOROLOGICAL AUTHORITY



***IMPACTS OF CLIMATE CHANGE ON CLIMATE SYSTEMS AND THE MASIKA, 2022  
SEASONAL RAINS.***

**Dar es Salaam, 13<sup>th</sup> April, 2022:**

This statement describes the updates on the evolution of the climate systems and outlook for the March to May, 2022 rainfall season (*Masika*), advisories and early warnings to various weather sensitive sectors such as Agriculture and Food Security, Livestock and Fisheries, Tourism and Wildlife, Transport, Local Authorities, Energy, Water and Mineral, Health sector and Disaster Management.

Prolonged periods of dry spells were experienced during the month of March, 2022 leading to suppressed rainfall especially over most areas of northern coast and north-eastern highlands. The prolonged dry spells were triggered by the occurrence of several tropical cyclones in the Mozambique channel that occurred further south of the position that could have enhanced rainfall in the country. Likewise sudden changes in Sea surface temperature (SSTs) emerged over the East African coast and Eastern part of the Indian Ocean. The sudden changes in SSTs rarely occur due to the tendency of oceans to conserve heat for long periods of time. However, this has been caused by the impacts of Climate Change.

The occurrence of Tropical cyclone and changes in SSTs contributed into holding the Intra Tropical Convergence Zone (ITCZ) over the southern part of the country whereby it usually commence its movement to northern parts of the country in early March. This situation has led to disruptions of the evolution of climate systems which affected the progress of *Masika*, 2022 rains.

### **Outlook**

During the remaining period of *Masika*, 2022 rainy season, climate systems indicate warmer than average SSTs in the eastern Indian Ocean and cooling of SSTs in the western

Indian Ocean along the East African coast and thus suppressing moisture influxes towards the country. This condition is likely to cause below normal-to-normal rains over northern coast, northeastern highlands and some areas of Mara, Simiyu and Shinyanga regions. However, normal to above normal rains are expected to continue over northern part of Kigoma (Kibondo and Kakonko districts), Kagera, Geita and Mwanza regions. It should be noted that events of heavy rains might occur despite suppressed rainfall condition expected during *Masika*, 2022.

These rains are expected to cease between the first and second week of May, 2022 over the northern coast, while over north-eastern highlands cessation is expected between the second and third week of May, 2022. Also, cessation over Lake Victoria basin is expected between the third and fourth week of May, 2022.

### **Expected Impacts**

- i. Loss of soil moisture condition that affect crop growth and development, availability of water and pasture for livestock and wildlife, reduced water level in rivers, reservoirs and groundwater recharge.*
- ii. Likelihood of elevated risk of infectious diseases particularly water-borne diseases due to utilization of unsafe water.*
- iii. Prolonged dry spells, invasion of crop pests' outbreak and crops may start wilting.*
- iv. Construction activities, transport and transportation are expected to benefit from periods of suppressed rainfall.*

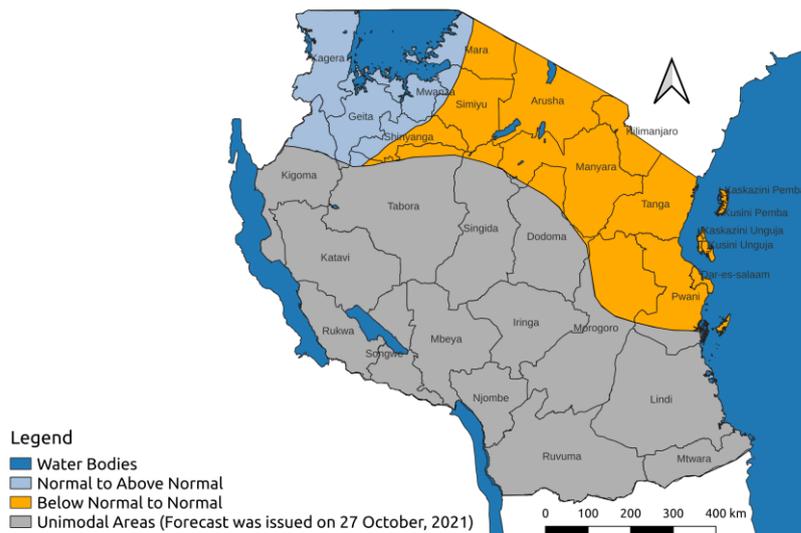
### **Advisories**

- i. Farmers are advised to apply agronomic practices that adhere to climatic smart agriculture, technologies and techniques available, and seek advice from extension officers in their areas.*
- ii. Communities are advised to prepare good plans for sustainable use of water resources and conservation of animal feeds.*
- iii. Relevant authorities are advised to co-operate in ensuring food security, availability of pastures and water; and provide guidance to minimize the expected impacts associated with shortage of rainfall.*

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*All correspondences should be directed to:*

Director General, Tanzania Meteorological Authority, Ubungo Plaza, 3<sup>rd</sup> Floor, 388 Morogoro Road  
P.O. Box 3056, 16102 Dar Es Salaam; Tel: +255 22 2460706-8; Fax: +255 22 2460735  
Email; [met@meteo.go.tz](mailto:met@meteo.go.tz); Website: [www.meteo.go.tz](http://www.meteo.go.tz)



*Map: Masika, 2022 rainy season outlook*

### ***Msimu* rainy season (November, 2021 – April, 2022)**

*Msimu* rainy season over unimodal areas, are expected to continue declining as the season progress towards the end in the month of April 2022. Furthermore, rains are expected to cease between the third and fourth week of April 2022 as forecasted.

*Communities are advised to continue to adhere to the weather information and warnings and updates provided by the Tanzania Meteorological Authority as well as to continue seeking, obtaining and utilizing expert's advice on their respective sectors to minimize the effects of severe weather.*

**Issued by:**

**Tanzania Meteorological Authority.**

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Director General, Tanzania Meteorological Authority, Ubungu Plaza, 3<sup>rd</sup> Floor, 388 Morogoro Road  
 P.O. Box 3056, 16102 Dar Es Salaam; Tel: +255 22 2460706-8; Fax: +255 22 2460735  
 Email; [met@meteo.go.tz](mailto:met@meteo.go.tz); Website: [www.meteo.go.tz](http://www.meteo.go.tz)