

## WEATHER SUMMARY FOR AUGUST, 2023 AND WEATHER OUTLOOK FOR SEPTEMBER, 2023

### Highlights of weather summary for August, 2023 and outlook for September, 2023:

This statement summarizes the current state of climate systems and associated weather observed during August 2023 and subsequently the outlook for the climate system, temperature and rainfall distribution for the month of September, 2023 over the country.

- I. In August 2023, dry conditions with cool temperatures were experienced over most areas of the country. Cold temperatures were observed in the high grounds of the southwestern highlands, especially during the first and second week of the month.
- II. During August 2023 periods of strong winds were observed over some areas, notably along the coastal areas and major lakes. In contrast, light to moderate rainfall was observed over a few areas of the country, particularly along the coastal areas, Lake Victoria basin, and high grounds of northeastern highlands.
- III. For September, 2023, a slight increase in temperatures is anticipated over most areas of the country. Additionally, periods of rain are likely to occur over some areas during the month.

### 1.0 WEATHER REVIEW FOR AUGUST, 2023.

In August 2023, most areas of the country continued to experience dry conditions with cool temperatures. The southwestern highlands experienced cold conditions, particularly during the first two weeks followed by a slight increase in temperature towards the end of the month. Igeri (Njombe) and Uyole (Mbeya) stations reported the lowest minimum temperatures between 4 °C and 12 °C during the month.

Concurrently, some areas of the country, including the coastal areas and major lakes, experienced periods of strong winds, with speeds of 40-50 km/hr and occasionally

escalating to 60 km/hr. In contrast, few areas along the coastal belt, Lake Victoria basin and high grounds of the northeastern highlands observed periods of light to moderate rains.

## **2.0 OUTLOOK FOR SEPTEMBER, 2023**

### **2.1 WEATHER AND CLIMATE SYSTEMS**

In September 2023, warmer-than-average sea surface temperatures (SSTs) are expected to persist over the Central Equatorial Pacific Ocean (CEPO), indicative of an impending El Niño condition. The western part of the Indian Ocean is also likely to be warmer than average SSTs, while the eastern part of the Indian Ocean is expected to have neutral to cooler than average SSTs. This SST pattern is likely to influence the advection of moisture influx towards the coastal and nearby regions. Off the Angola coast, normal SSTs are expected. Consequently, this condition is expected to exert a lesser impact on the moisture-rich westerly winds towards the Lake Victoria basin and the western part of the country. Furthermore, warmer SST anomalies are likely to persist over the southern tip of Africa. This condition is expected to suppress cold air influx from the south, subsequently contributing to temperature elevation in certain parts of the country.

### **2.2 WEATHER OUTLOOK FOR SEPTEMBER, 2023**

The weather outlook for September, 2023 indicates that the majority of the country will experience dry conditions, especially during the first two weeks, accompanied by a slight increase in temperatures. However, periods of light to moderate rainfall are anticipated over a few areas along the coastal belt, Lake Victoria basin, and the northeastern highlands. Additionally, episodes of strong winds, with speeds reaching 40-50 km/hr, are likely to occur over some regions, notably the coastal belt, central areas, southwestern highlands, and major lakes during the month. Details of the weather outlook are as follows;

**Northern Coast (Tanga, Pwani, Dar es Salaam regions, northern sector of Morogoro region, Mafia, Unguja and Pemba Islands):**

Along the coastal strip and the Isles, minimum temperatures are expected to range from 21°C to 27°C. Conversely, over the hinterland, slightly cooler minimum temperatures ranging from 16°C to 21°C are anticipated. Moreover, mainly dry conditions are expected to prevail during September. Nonetheless, occasional light to moderate rainfall activities are likely in a few areas of the coastal strip during the month.

**North Eastern Highlands (Kilimanjaro, Arusha and Manyara regions):**

Minimum temperatures are anticipated to range from 13 °C to 21 °C across much of the region. However, over the high ground areas, minimum temperatures are expected to be even cooler, falling below 13 °C. Furthermore, the mainly dry condition is expected punctuated by isolated cases of light to moderate rains over the high ground areas.

**Lake Victoria basin (Kagera, Geita, Shinyanga, Mwanza, Mara and Simiyu regions):**

Most areas of the region are expected to encounter minimum temperatures ranging between 17 °C and 23 °C. Nevertheless, the high grounds of Kagera and Geita regions are likely to experience minimum temperatures below 17 °C. Conversely, light to moderate rainfall is anticipated over a few areas, with the possibility of thundery activities at times during the third to fourth week of the month.

**Western regions (Kigoma, Katavi and Tabora regions):**

Minimum temperatures ranging from 17 °C to 23 °C are expected to prevail across the majority of the regions. However, predominantly dry conditions are expected to persist in most areas with isolated rain activities.

## **Central areas (Dodoma and Singida regions):**

Minimum temperatures ranging between 13 °C and 21 °C are expected across a majority of areas. Furthermore, mainly dry conditions will likely persist over most areas throughout the month.

## **Southwestern Highlands (Rukwa, Songwe, Mbeya, Njombe, Iringa regions and Southern sector of Morogoro region):**

Minimum temperatures are anticipated to fall within the range of 11 °C to 18 °C over most areas. Notably, the high ground areas, encompassing the Njombe region, may experience colder conditions with minimum temperatures below 11 °C. Otherwise, dry conditions are likely to persist over the majority of the region during the month. However, there is a likelihood of isolated rain activities over the high ground areas.

## **Southern Coast (Mtwara and Lindi regions):**

Minimum temperatures ranging from 19 °C to 25 °C are expected over most areas. Concurrently, mainly dry conditions with light to moderate rainfall activities are anticipated in a few areas of the coastal strip, particularly during the third and fourth week of the month.

## **Southern Region (Ruvuma region):**

Minimum temperatures across most of the region are expected to range from 13 °C to 20 °C. Notably, the high ground areas are likely to experience cooler minimum temperatures dipping below 13 °C. Additionally, mainly dry conditions are expected to persist over the majority of the region during this period. However, occasional isolated rains are also anticipated.

## 2.3 FURTHER OUTLOOK FOR THE MONTH OF OCTOBER, 2023.

For the month of October, 2023, the *Vuli* rains are anticipated to commence across bimodal areas. Furthermore, an increase in temperatures is anticipated in most areas.

## 2.4 ADVISORY

Health precautions should be taken to protect the community against diseases that can be caused by cold weather, dust and the use of unclean water. Due to mainly dry conditions over many areas during this period, water and pasture should be used sparingly and carefully to mitigate the expected impacts.

*Tanzania Meteorological Authority (TMA) advises all users of weather information including farmers, livestock keepers, wildlife conservation authorities, hydrological and health sectors to continue seeking and utilizing experts' advice on their relevant sectors.*

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**TANZANIA METEOROLOGICAL AUTHORITY**