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**MINISTRY OF ENVIRONMENT AND FORESTRY**

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Ref: MET/EBU/2/MONTHLY/9<sup>TH</sup> SEPTEMBER-2022

Issue Date: 9<sup>th</sup> September 2022

**WEATHER FORECAST FOR SEPTEMBER 2022 AND WEATHER REVIEW FOR AUGUST 2022**

**1.0 HIGHLIGHTS**

**1.1. The Weather Forecast for September 2022**

The forecast for September 2022 indicates that, the County of Embu is likely to experience afternoon showers and cloudy conditions in the mornings over few areas, especially in Manyatta and Runyenjes sub-counties during the first half of the month. Mbeere North and Mbeere South are expected to be generally sunny and dry.

**National October-November-December (OND) 2022 Rainfall Outlook**

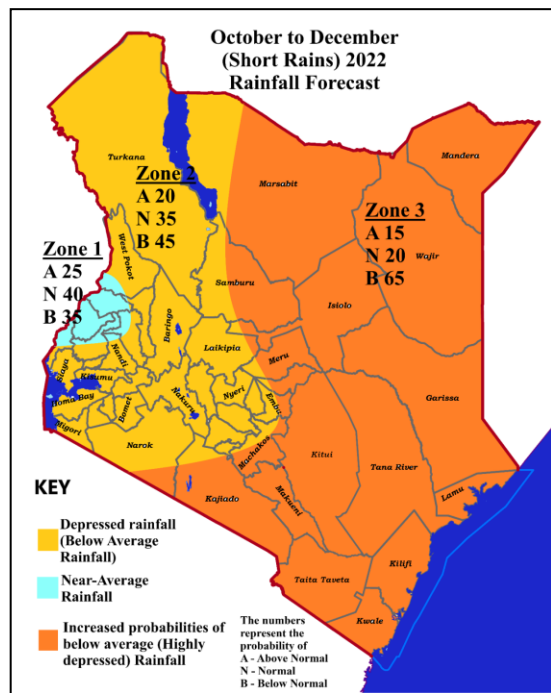


Fig. 1: National OND 2022 Rainfall Forecast

## 2.2 Rainfall Performance in August 2022 in Embu County

There were more intensive rains in August 2022 in Embu County than in July 2022. True to it, many stations reported higher amounts of rains than were reported in July 2022.

As far as rainfall performance in August 2022 is concerned, Runyenjes Agriculture Office Rainfall Station reported the highest amount of rainfall in Embu County. It reported a monthly total rainfall of 143.5mm and was followed by Mungania Tea Factory with a total of 128.6mm, Thicingi Girls Sec School with 117, Kathangariri Tea Factory 103.8, Kigari PPTC 101.7, Embu Met. Station 80.3, Kianamu-Nthawa 37.2, Kasafari 35.7, Kininthe Secondary School 33.8, Managia 23.9, Gitii Ngura 8.5, Mayori 7.2, Kirie 2.5 and Ndune 1.2mm. Malikini, Kanyuambora Secondary School, Kirathe, Muthanthara Dispensary and Makima ACC Ground rainfall stations all reported no rainfall for the whole month of August 2022. The above information is as shown in Table 1 and Figure 2 below. The National seasonal October-November-December (OND) 2022 rainfall forecast for Embu County is as shown in Figure 1 above.

*Table 1: Monthly Rainfall Performance in August 2022*

No.	Station	August 2022 Total Rainfall
1	Runyenjes Agriculture Office	143.5
2	Mungania Tea Factory	128.6
3	Thicingi Girls Sec School	117
4	Kathangariri Tea Factory	103.8
5	Kigari PPTC	101.7
6	Embu Met. Station	80.3
7	Kianamu-Nthawa	37.2
8	Kasafari	35.7
9	Kininthe Secondary School	33.8
10	Managia	23.9
11	Gitii - Ngura	8.5
12	Mayori	7.2
13	Kirie	2.5
14	Ndune	1.2
15	Malikini	0
16	Kanyuambora Secondary School	0
17	Kirathe Dispensary	0
18	Makima ACC Ground	0
19	Muthanthara Dispensary	0

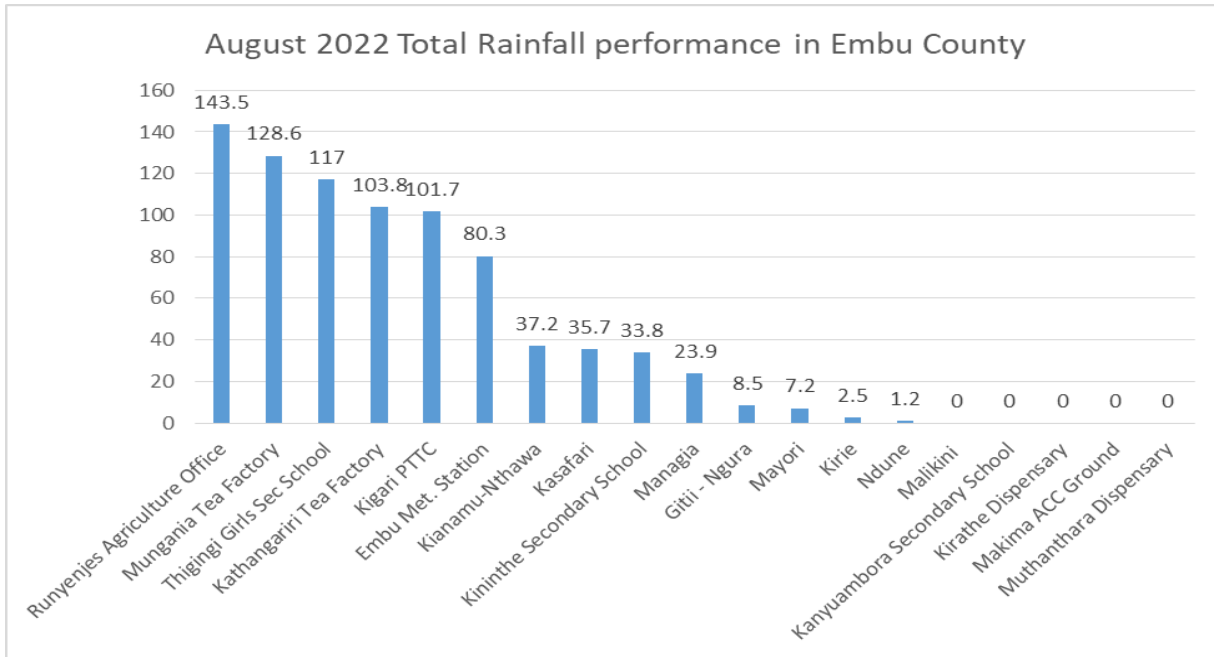


Fig. 2: August 2022 monthly rainfall performance in Embu County

### 2.3 Comparison between August 2022 and July 2022 rainfall performance in Embu County

In August 2022, slightly more places in Embu County received rainfall than was the case in July 2022. There was also a marked increase in amounts received in August as compared by those received in July 2022. This information is as shown in Table 2 and figure 3 below.

No	Station	July 2022 Total Rainfall	August 2022 Total Rainfall
1	Runyenjes Agriculture Office	68.9	143.5
2	Mungania Tea Factory	110	128.6
3	Thicingi Girls Sec School	129.6	117
4	Kathangariri Tea Factory	120.6	103.8
5	Kigari PTTC	89.1	101.7
6	Embu Met. Station	54.3	80.3
7	Kianamu-Nthawa	15.9	37.2
8	Kasafari	0	35.7
9	Kininthe Secondary School	15.6	33.8
10	Managia	5.5	23.9
11	Gitii - Ngura	3	8.5
12	Mayori	2.3	7.2
13	Kirie	0	2.5
14	Ndune	0	1.2
15	Malikini	0	0
16	Kanyuambora Secondary School	0	0
17	Kirathe Dispensary	0	0
18	Makima ACC Ground	0	0
19	Muthanthara Dispensary	0	0

Table 2: Comparison among August 2022 and July 2022 Monthly Rainfall Performance in Embu County

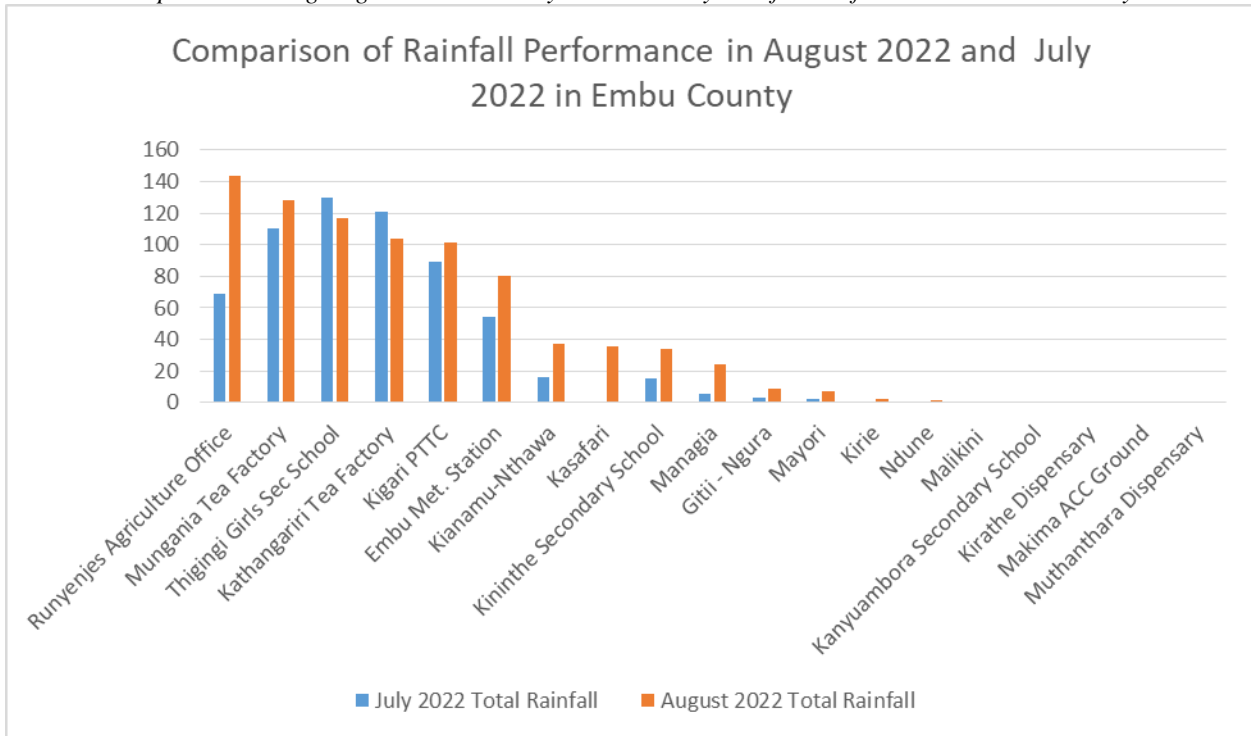


Fig. 3: Comparison between August 2022 and July 2022

## 2.0 Weather Outlook for September 2022

It is expected that most parts of Embu County will be generally dry for most of the month of September, however some parts of Manyatta and Runyenjes sub-counties will experience occasional morning rains and drizzle while occasional afternoon showers are likely to occur especially at the beginning of the month. The expected total rainfall amount is likely to be near to above the longterm average for September.

The rainfall forecast for September 2022 is based on the observed patterns of the Global Sea Surface Temperatures (SSTs) especially over the Indian and Pacific Oceans. The below average SSTs in the Western Equatorial Indian Ocean (adjacent to the East African Coast), the warmer than average SSTs in the Eastern Equatorial Indian Ocean (adjacent to Australia) and also the below average SSTs across most of the equatorial Pacific Ocean were taken into account. This constitutes a negative Indian Ocean Dipole and La Niña Conditions respectively.

### **3.0 Potential Impacts**

The following are the likely impacts during the month of August 2022 based on the forecast:

#### **3.1. Agriculture and Food Security**

Just like in the August 2022, the dry weather conditions expected over the ASAL areas of Mbeere North and Mbeere South are expected to have negative effect on food, water, pasture and browse for consumption. Close monitoring of the situation is therefore necessary to avert the stress on human life and loss of livestock.

#### **3.2 Water Resources Management and Energy**

Just as it was the case in August 2022, it is anticipated that the current drought affecting some parts of the southern parts of Embu County is expected to worsen. Conflicts over the scarce resources, particularly water, pasture, and browse, are likely to continue. In order to prevent loss of lives, livelihoods, and livestock, relevant authorities and humanitarian organizations are advised to step up the measures already in place. Additionally, it is advised that local leaders encourage communal resource sharing and foster peace.

#### **3.3 Environment**

Conflicts between people and wildlife could result from the ASAL regions' scarcity of resources. To reduce such occurrences, the relevant authorities are urged to provide foraging areas and watering facilities for wildlife. The predicted dry weather could increase incidences of forest fires. In this regard, necessary protective steps should be taken by the appropriate authorities in the forestry sector.

There is a likelihood of increased wildfires in areas expected to remain dry. Thus, fire management practices should be put in place.

*NB: Please use this monthly forecast in conjunction with the weekly weather forecasts issued by the Embu County Office.*

**KEY OF SCIENTIFIC WORDS USED**

<b>Rainfall categories</b>	
<b>Range</b>	<b>Category</b>
<5 mm	Light
5 - 20mm	Moderate
20 - 50mm	Heavy
>50mm	Very heavy

<b>Rainfall coverage</b>	
<b>Term</b>	<b>Meaning</b>
Most Places	Between 66% and 100%
Several Places	Between 33% and 66%
Few Places	Between 0 and 33%

**Synoptic patterns/features:** Are the global and continental weather causing systems that play a major role in determining the weather in a Country/area. The synoptic patterns are modified by the local conditions such as water bodies (lakes) and topography (Mountains).

**County Director of Meteorological Services, Embu**