

### REPUBLIC OF TÜRKİYE MINISTRY OF ENVIRONMENT, URBANIZATION AND CLIMATE CHANGE Turkish State Meteorological Service





# State of the Climate in August 2024



Climate and Agricultural Meteorology Department Research Department

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#### CONTENT

1.	Introduction	. 1
2.	Temperature	. 2
3.	Precipitation	. 4
4.	Extreme Meteorological Events	. 6
Ref	erences	. 7

#### 1. Introduction

The mean temperature of Türkiye in August 2024 was 26.4°C. This value was 1.3°C above the 1991-2020's normal (25.1°C).

Mean temperatures in August 2024, Tekirdağ, Kırklareli, Sarıyer, Bilecik, Afyon, Dalaman, in the western parts of Antalya, Kahramanmaraş, throughout the Central Anatolia Region, throughout the Central and Western Black Sea Region, in the inner parts of the Eastern Black Sea Region, While it occurs near normal in a large part of the Eastern Anatolia Region, around Kilis, Batman and Birecik; It was above normal in other parts of our country.

The mean temperature of August 2024 was recorded as the 4th warmest August in the last 53 years.

Regional temperatures were above normal long-term mean (1991-2020) in all 7 regions.

The lowest temperature was observed in Kangal with 1.9 °C and the highest temperature was observed in Cizre with 46.1 °C. There were 3 extreme maximum temperature records.

Türkiye's areal mean precipitation in August 2024 was 13.9 mm. This value is approximately 7% below the 1991-2020's normal (14.8 mm).

In August, precipitation increased compared to normal in all of Central Anatolia, except Eskişehir, Ankara and Karaman surroundings; Especially in Nevşehir surroundings, rainfall was more than 3 times the normal. Except for the southern part of the Marmara Region, the Western Black Sea Region, the coastal parts of the Aegean Region, and the surroundings of Gaziantep, there has been a decrease of over 80% in the Southeastern Anatolia Region and Antalya, Mersin, Adana, Hatay and Hakkari.

In August, the highest precipitation was occurred in Rize with 141.6 mm and lowest recorded with 0.1 mm precipitation in Mardin.

Regional precipitation in August was below normal (1991-2020) in all regions except the Mediterranean and Central Anatolia regions.

The number of rainy days in August throughout Turkey was above normal with 3.5 days (1991-2020 normal is 3.0 days). The number of rainy days occurred in the range of 10-15 days coastal areas of the Eastern Black Sea and the surroundings of Çankırı; the coastal part of the Aegean Region, the eastern parts of Şanlıurfa and the western parts of Mardin did not receive any rainfall.

There are 69 extreme events have been reported in August 2024 in TSMS's Kardelen Database. Percentage of extreme events recorded in August 2024 were heavy rain-flood (51%), hail (22%), storm-tornado (8%), lightning (13%), and wild fire (6%).

#### 2. Temperature

The mean temperature of Türkiye in August 2024 was 26.4°C. This value was 1.3°C above the 1991-2020's normal (25.1°C).Fig.2.1).

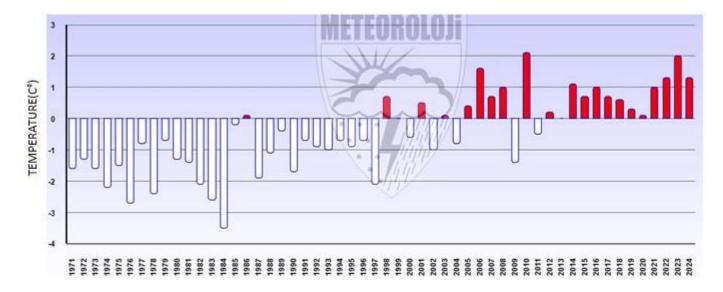


Figure 2.1 Monthly mean temperature anomalies in August (Url 1).

Mean temperatures in August 2024, Tekirdağ, Kırklareli, Sarıyer, Bilecik, Afyon, Dalaman, in the western parts of Antalya, Kahramanmaraş, throughout the Central Anatolia Region, throughout the Central and Western Black Sea Region, in the inner parts of the Eastern Black Sea Region, While it occurs near normal in a large part of the Eastern Anatolia Region, around Kilis, Batman and Birecik; It was above normal in other parts of our country. (Fig.2.2).

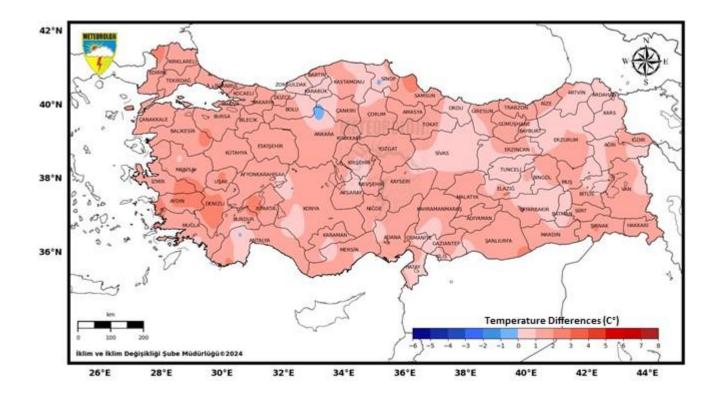


Figure 2.2. Spatial distribution of mean temperature anomaly in Türkiye in August 2024 (Url 1).

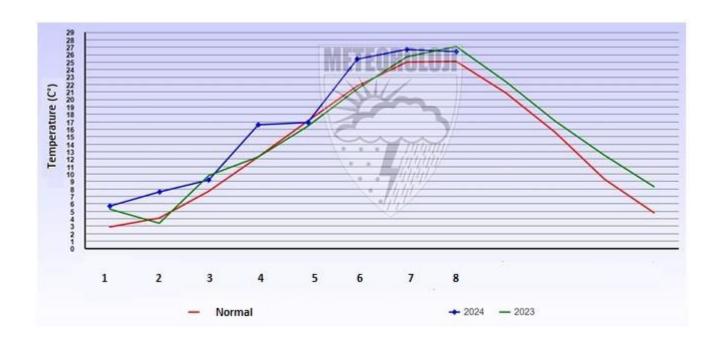


Figure 2. 3 The difference of the monthly mean temperature in 2024 from normal (1991-2020) (Url 1).

The monthly mean temperature of August was above its normal.

#### 2.1. Regional Temperature

Regional temperatures were above normal long-term mean (1991-2020) in all regions (Fig. 2.4).



Figure 2. 4 Regional mean temperature differences in August 2024 (Url 1).

#### 2.2. Extreme Temperature

The lowest temperature was observed in Kangal with 1.9 °C and the highest temperature was observed in Cizre with 46.1 °C. There were 3 extreme maximum temperature records.

#### 3. Precipitation

Türkiye's areal mean precipitation in August 2024 was 13.9 mm. This value is approximately 7% below the 1991-2020's normal (14.8 mm) (Fig. 3.1)

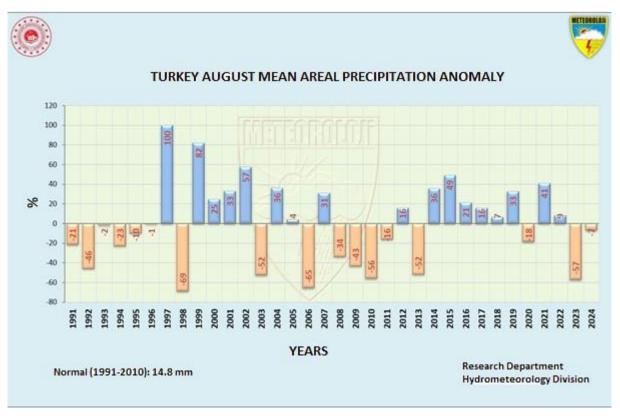


Figure 3. 1 Areal precipitation anomaly in August in Türkiye (Url 2).

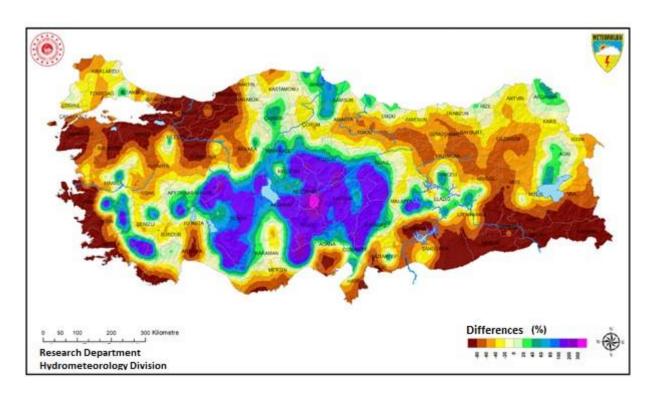


Figure 3. 2 Spatial distribution of mean precipitation anomalies in August 2024 (Url 2).

In August, precipitation increased compared to normal in all of Central Anatolia, except Eskişehir, Ankara and Karaman surroundings; Especially in Nevşehir surroundings, rainfall was more than 3 times the normal. Except for the southern part of the Marmara Region, the Western Black Sea Region, the coastal parts of the Aegean Region, and the surroundings of Gaziantep, there has been a decrease of over 80% in the Southeastern Anatolia Region and Antalya, Mersin, Adana, Hatay and Hakkari. (Fig. 3.2).

#### 3.1. Regional Precipitation

Regional precipitation in July were above normal (1991-2020) in all regions except Marmara region (Figure 3.3).

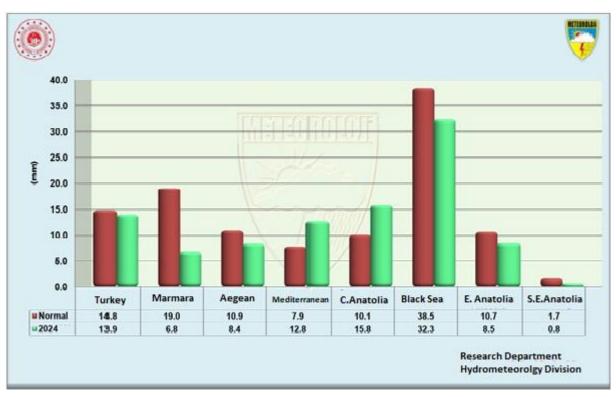


Figure 3. 3 Regional Precipitation Differences in August 2024 (Url 2).

#### 3.2. Rainy Days

The number of rainy days in August throughout Turkey was above normal with 3.5 days (1991-2020 normal is 3.0 days). The number of rainy days occurred in the range of 10-15 days coastal areas of the Eastern Black Sea and the surroundings of Çankırı; the coastal part of the Aegean Region, the eastern parts of Şanlıurfa and the western parts of Mardin did not receive any rainfall. (Fig. 3.4).

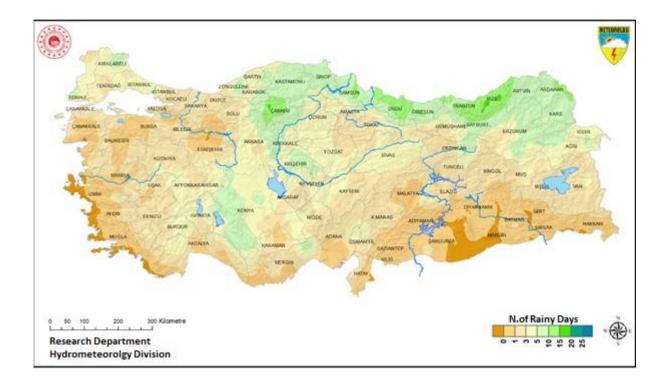
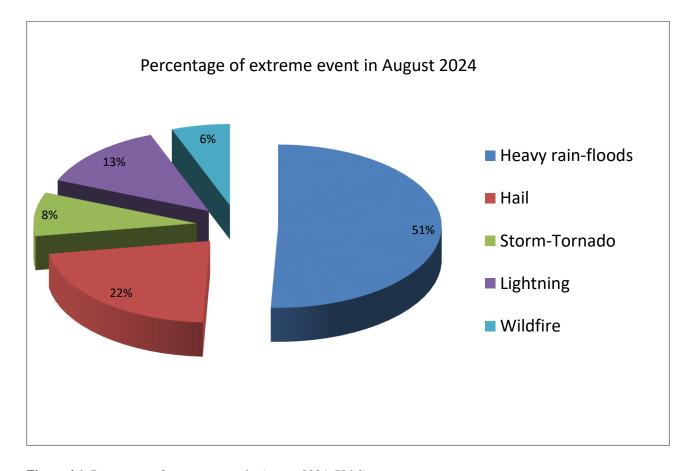


Figure 3. Number of rainy days in August 2024 (Url 2).

#### 4. Extreme Meteorological Events



**Figure 4.1.** Percentage of extreme event in August 2024 (Url 3).

There are 69 extreme events have been reported in August 2024 in TSMS's Kardelen D	atabase.
Percentage of extreme events recorded in August 2024 were heavy rain-flood (51%), hai	1 (22%),
storm-tornado (8%), ligthning (13%), and wild fire (6%) (Fig. 4.1).	

#### References

- URL 1, Turkish State Meteorological Service, temperature analysis http://www.mgm.gov.tr/veridegerlendirme/sicaklik-analizi.aspx
- 2. URL 2, Turkish State Meteorological Service, precipitation analysis <a href="http://www.mgm.gov.tr/veridegerlendirme/yagis-raporu.aspx">http://www.mgm.gov.tr/veridegerlendirme/yagis-raporu.aspx</a>
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