

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





State of the Climate in April 2024



Climate and Agricultural Meteorology Department Research Department

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1. Introduction

The mean temperature of Türkiye in April 2024 was 16.6°C. This value was 4.3°C above the 1991-2020's normal (12.3°C).

Mean temperatures in April 2024 were above normal in whole Türkiye.

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

The lowest temperature was observed in Sarız with -9.4°C and the highest temperature was observed in Ceylanpınar with 38.9°C. There were 30 new extreme maximum temperature records.

Türkiye's areal mean precipitation in April 2024 was 28.5 mm. This value is approximately 50% below the 1991-2020's normal (57.5 mm).

During the April, rainfall were decreased of approximately 80% in Bilecik, Bursa, Kastamonu, Samsun, Amasya, Tokat, Giresun, Rize, Trabzon, Artvin, Ardahan, Burdur, Afyonkarahisar, Denizli and Antalya. On the contrary an increased of 60% compared to normal was recorded in İstanbul, Kırklareli, Çanakkale and Mersin.

In April, the highest precipitation was occurred in Hakkari with 97.5 mm and lowest recorded with 8.5 mm precipitation in Ardahan.

Regional precipitation in April were below normal (1991-2020) in all 7 regions.

The number of rainy days in April throughout Turkey was below normal with 5.9 days (1991-2020 normal is 10.8 days). The number of rainy days occurred in the range of 0-5 days in Aegean region, west parts of Central Anatolia and Mediterranean region, Bolu, Bursa, Bilecik, Mersin, Şanlıurfa, Mardin, Bingöl, Siirt, Şırnak and Artvin; in the range of 10-15 in Edirne, Kırklareli, Samsun, Ordu, and Trabzon.

There are 75 extreme events have been reported in April 2024 in TSMS's Kardelen Database. Percentage of extreme events recorded in April 2024 were heavy rain-flood (24%), hail (17%), stormtornado (54%), landslide (1%), lightning (3%) and frost (1%)

2. Temperature

The mean temperature of Türkiye in April 2024 was 16.6°C. This value was 4.3°C above the 1991-2020's normal (12.3°C) (Fig.2.1).

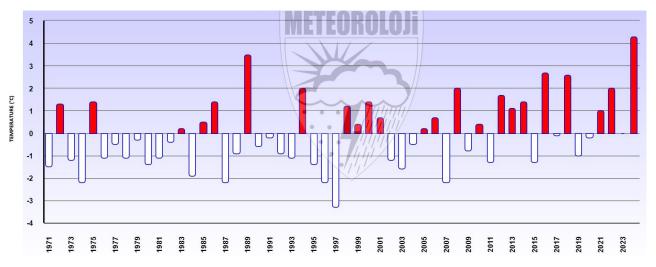


Figure 2.1 Monthly mean temperature anomalies in April (Url 1).

Mean temperatures in April 2024 were above normal in whole Türkiye (Fig.2.2).

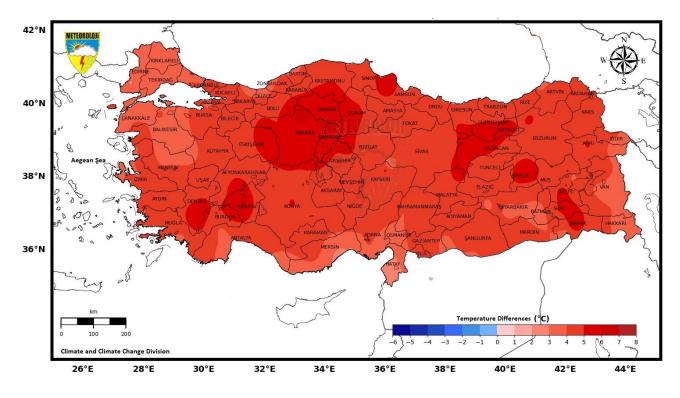


Figure 2.2. Spatial distribution of mean temperature anomaly in Türkiye in April 2024 (Url 1).

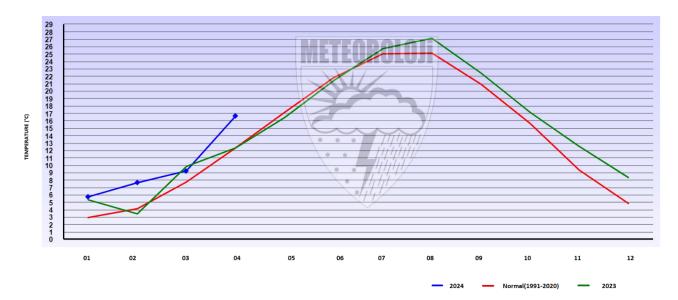


Figure 2. 3 The difference of the monthly mean temperature in 2024 from normal (1991-2020) (Url 1).

The monthly mean temperature of April was above its normal.

2.1. Regional Temperature

Regional temperatures were above the long-term mean (1991-2020) in all 7 regions (Fig. 2.4).

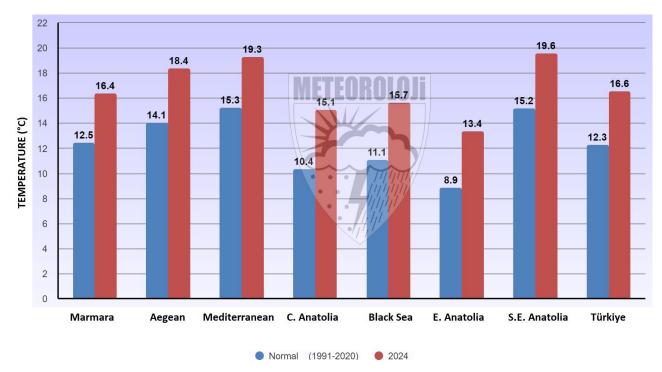


Figure 2. 4 Regional mean temperature differences in April 2024 (Url 1).

2.2. Extreme Temperature

The lowest temperature was observed in Sarız with -9.4°C and the highest temperature was observed in Ceylanpınar with 38.9°C. There were 30 new extreme maximum temperature records.

3. Precipitation

Türkiye's areal mean precipitation in April 2024 was 28.5 mm. This value is approximately 50% below the 1991-2020's normal (57.5 mm) (Fig. 3.1)

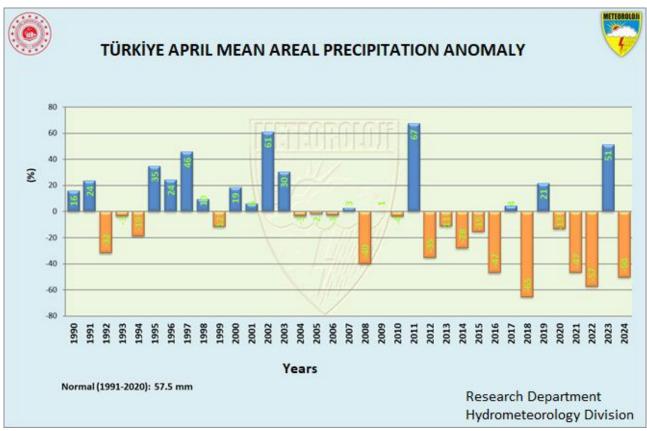


Figure 3. 1 Areal precipitation anomaly in April in Türkiye (Url 2).

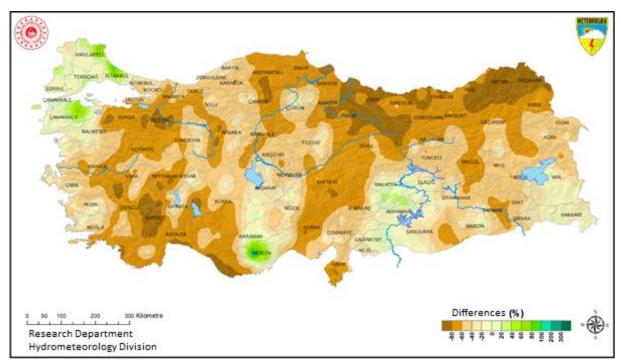


Figure 3. 2 Spatial distribution of mean precipitation anomalies in April 2024 (Url 2).

During the April, rainfall were decreased of approximately 80% in Bilecik, Bursa, Kastamonu, Samsun, Amasya, Tokat, Giresun, Rize, Trabzon, Artvin, Ardahan, Burdur, Afyonkarahisar, Denizli and Antalya. On the contrary an increased of 60% compared to normal was recorded in İstanbul, Kırklareli, Çanakkale and Mersin (Fig. 3.2).

3.1. Regional Precipitation

Regional precipitation in April were below normal (1991-2020) in all 7 regions (Figure 3.3).

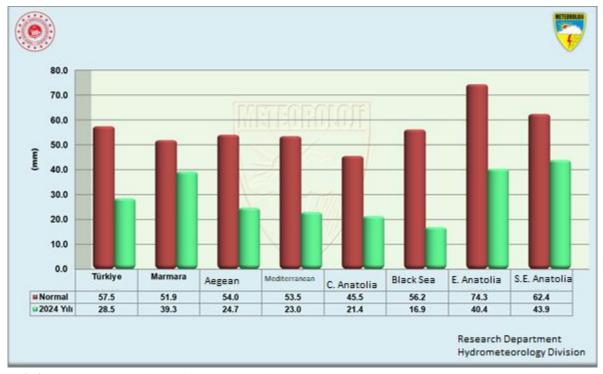


Figure 3. 3 Regional Precipitation Differences in April 2024 (Url 2).

3.2. Rainy Days

The number of rainy days in April throughout Turkey was below normal with 5.9 days (1991-2020 normal is 10.8 days). The number of rainy days occurred in the range of 0-5 days in Aegean region, west parts of Central Anatolia and Mediterranean region, Bolu, Bursa, Bilecik, Mersin, Şanlıurfa, Mardin, Bingöl, Siirt, Şırnak and Artvin; in the range of 10-15 in Edirne, Kırklareli, Samsun, Ordu, and Trabzon (Fig. 3.4).

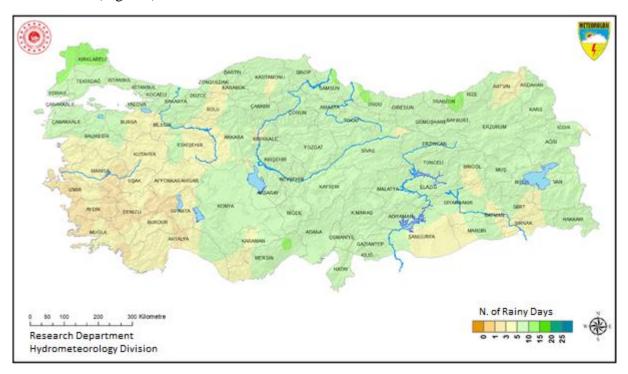


Figure 3. Number of rainy days in April 2024 (Url 2).

4. Extreme Meteorological Events

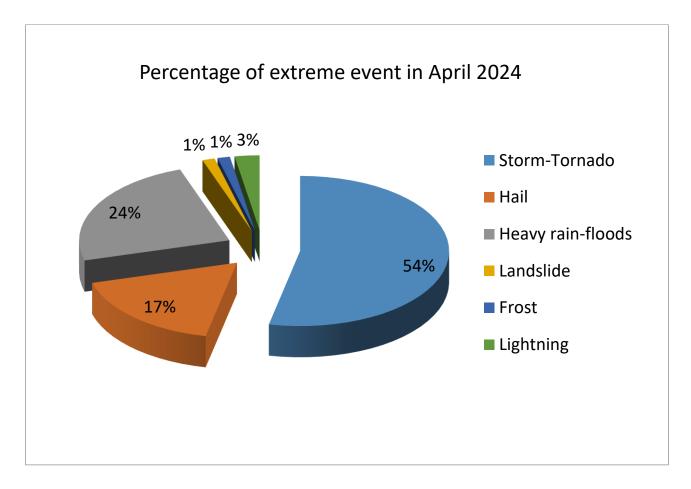


Figure 4.1. Percentage of extreme event in April 2024 (Url 3).

There are 75 extreme events have been reported in April 2024 in TSMS's Kardelen Database. Percentage of extreme events recorded in April 2024 were heavy rain-flood (24%), hail (17%), stormtornado (54%), landslide (1%), lightning (3%) and frost (1%) (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 http://www.mgm.gov.tr/veridegerlendirme/yagis-raporu.aspx
- 3. URL 3, Turkish State Meteorological Service, Kardelen, meteorological extreme event database http://kardelen.mgm.gov.tr/BultenGenel/Klima/fevkGlnYeni.aspx



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