



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



State of the Climate in June 2023



Climate and Agricultural Meteorology Department
Research Department

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2023

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1. Introduction

The mean temperature of Türkiye in June 2023 was 21.4°C. This value was 0.4°C below the 1991-2020's normal (21.8°C).

Mean temperatures in June 2023 are below normal in most of the places in Türkiye except Çanakkale, Florya Alanya, Düzce, Bolu, Çankırı, Kırıkkale, Çorum, Samsun, Tokat, eastern Black Sea, and south eastern Anatolia.

Regional temperatures were below the long-term mean (1991-2020) in most of the regions except Black Sea and Southeast Anatolia Regions.

The lowest temperature was observed in Senirkent, Isparta with 0°C and the highest temperature was observed in Cizre with 42.5°C. Senirkent minimum temperatures was it's new record.

Türkiye's areal mean precipitation in June 2023 was 58.1 mm. This value is approximately 73% above the 1991-2020's normal (33.6 mm).

While an increase of more than 200% is observed in the Izmir, Manisa, Aydın, Muğla, Burdur, Afyon, Isparta and Samsun compared to the normal, in the Hatay, Gaziantep, Kilis, Şanlıurfa, Mardin, Batman, Şırnak, Siirt, Hakkari and Istanbul there was a decrease of more than 60%.

In June, the highest precipitation was occurred in Rize with 166.3 mm and lowest recorded with 0.3 mm precipitation in Kilis.

Regional precipitation in June was above normal (1991-2020) except South East Anatolia regions.

The average number of rainy days in June 2023 in Türkiye was 10.4, which is above the 1991-2020 normal (6.5 days). While the number of rainy days was 20-25 days in Ordu, Giresun, Trabzon, Rize, Artvin and Ardahan, it was 5 days or less in the Southeastern Anatolia Region, Çanakkale, Muğla, Antalya, Mersin, Adana's coastal areas, Hatay and Hakkari.

There are 253 extreme events have been reported in June 2023 in TSMS's Kardelen Database. Percentage of extreme events recorded in June 2023 were heavy rain-flood (72%), hail (15%), storm-tornado (6%), lightning (6%) and landslide (%1).

2. Temperature

The mean temperature of Türkiye in June 2023 was 21.4°C. This value was 0.4°C below the 1991-2020's normal (21.8°C) (Fig.2.1).

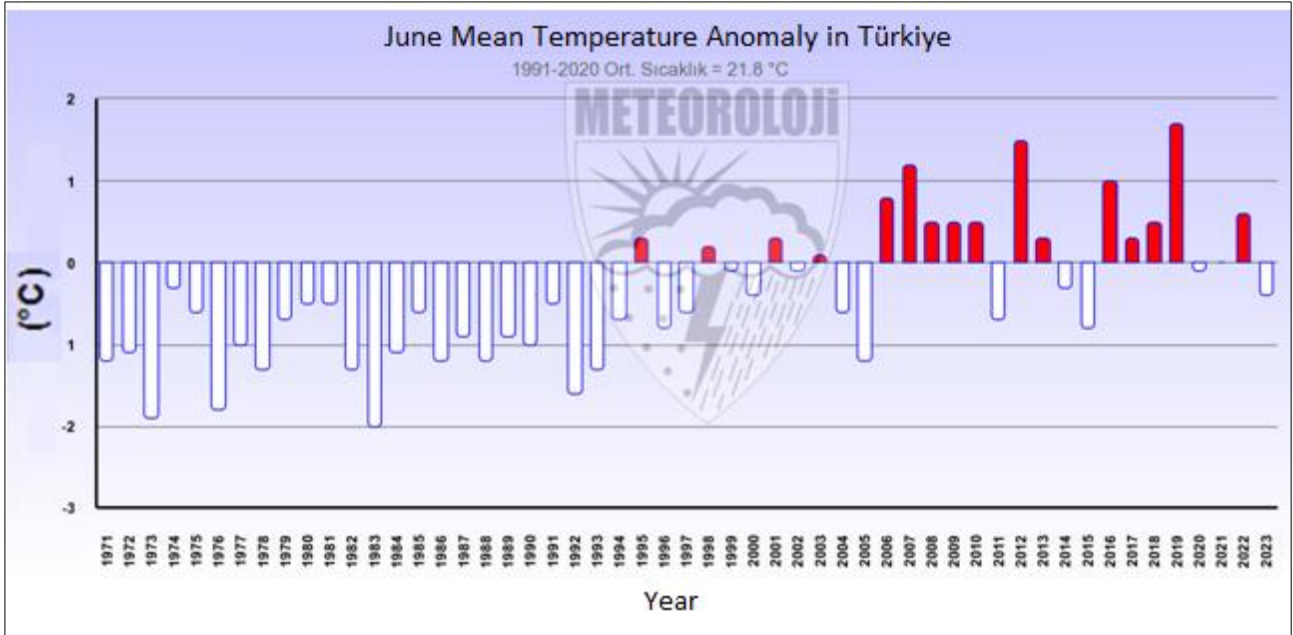


Figure 2.1 Monthly mean temperature anomalies in June (Url 1).

Mean temperatures in June 2023 are below normal in most of the places in Türkiye except Çanakkale, Florya Alanya, Düzce, Bolu, Çankırı, Kırıkkale, Çorum, Samsun, Tokat, eastern Black Sea, and south eastern Anatolia (Fig.2.2).

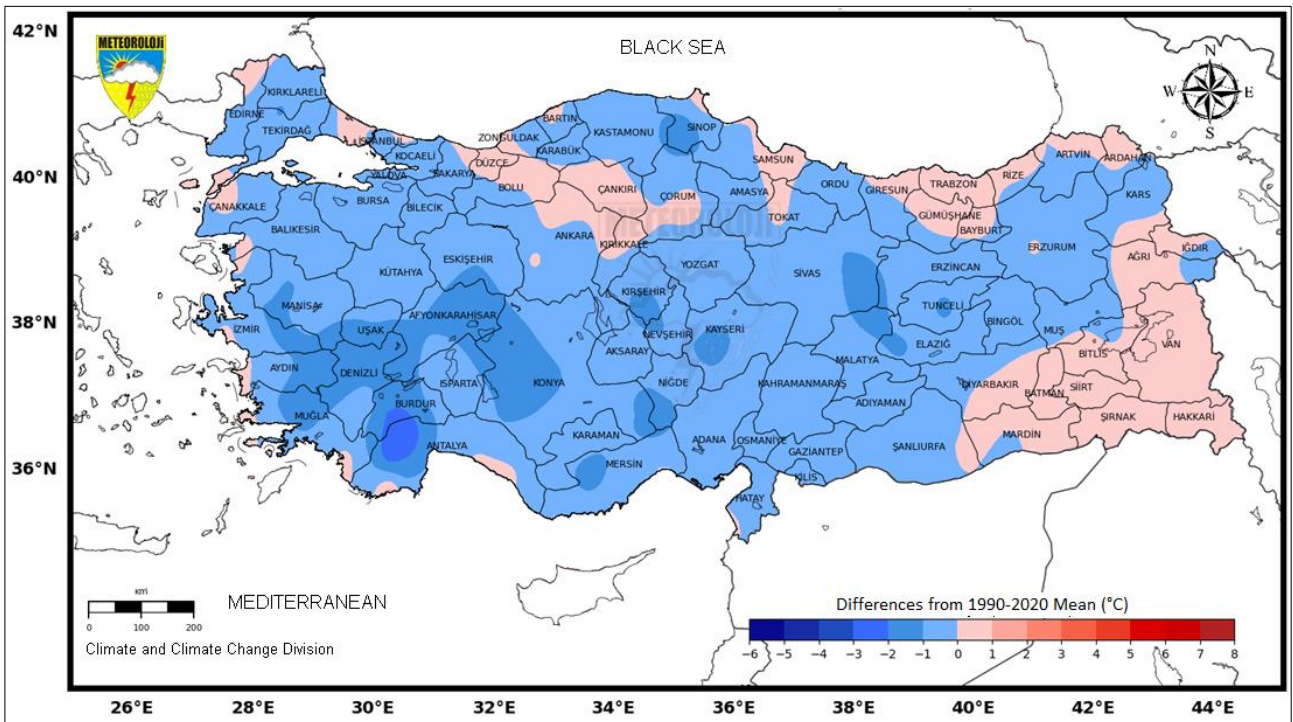


Figure 2.2. Spatial distribution of mean temperature anomaly in Türkiye in June 2023 (Url 1).

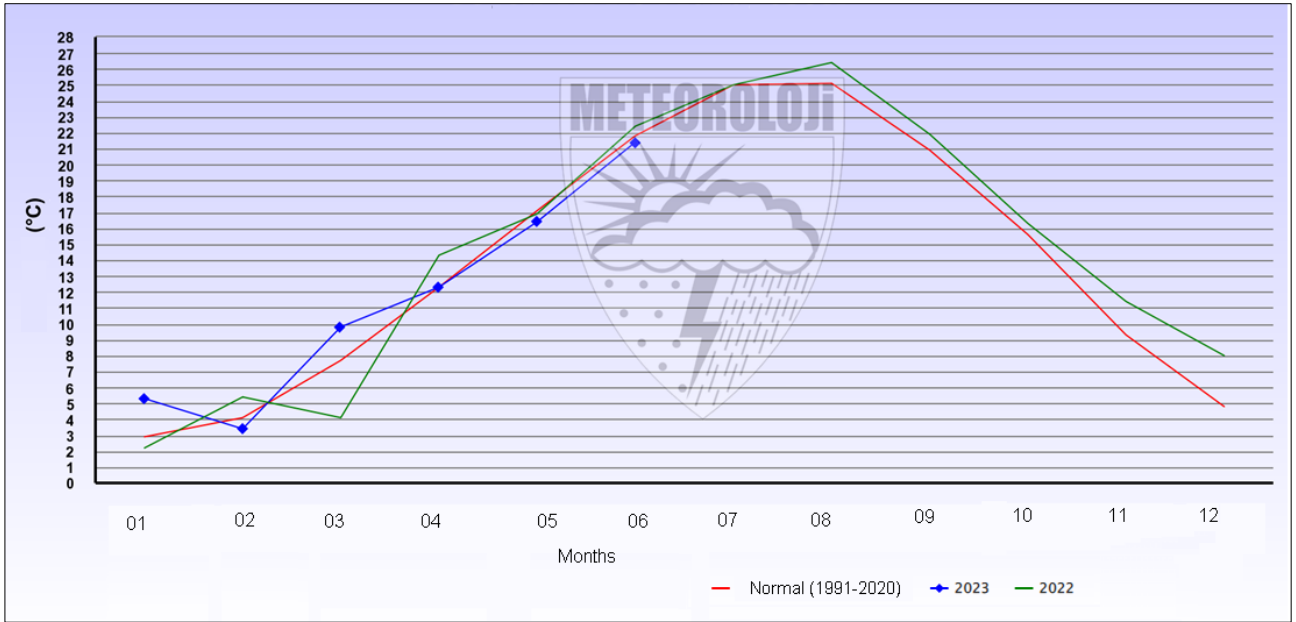


Figure 2. 3 The difference of the monthly mean temperature in 2023 from normal (1991-2020) (Url 1).

The monthly mean temperatures of June was below normal.

2.1. Regional Temperature

Regional temperatures were below the long-term mean (1991-2020) in most of the regions except Black Sea and Southeast Anatolia Regions (Fig. 2.4).

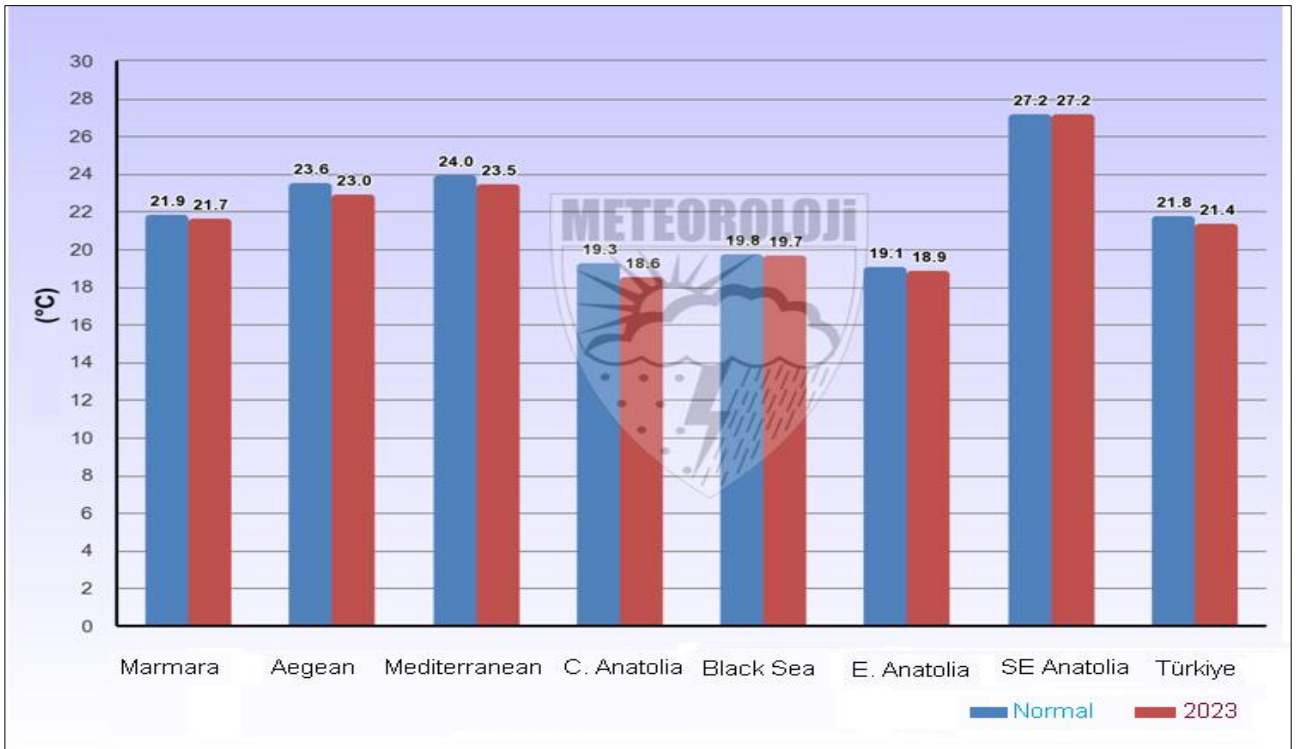


Figure 2. 4 Regional mean temperature differences in June 2023 (Url 1).

2.2. Extreme Temperature

The lowest temperature was observed in Senirkent, Isparta with 0°C and the highest temperature was observed in Cizre with 42.5°C. Senirkent minimum temperatures was it's new record.

3. Precipitation

Türkiye's areal mean precipitation in June 2023 was 58.1 mm. This value is approximately 73% above the 1991-2020's normal (33.6 mm) (Fig. 3.1)

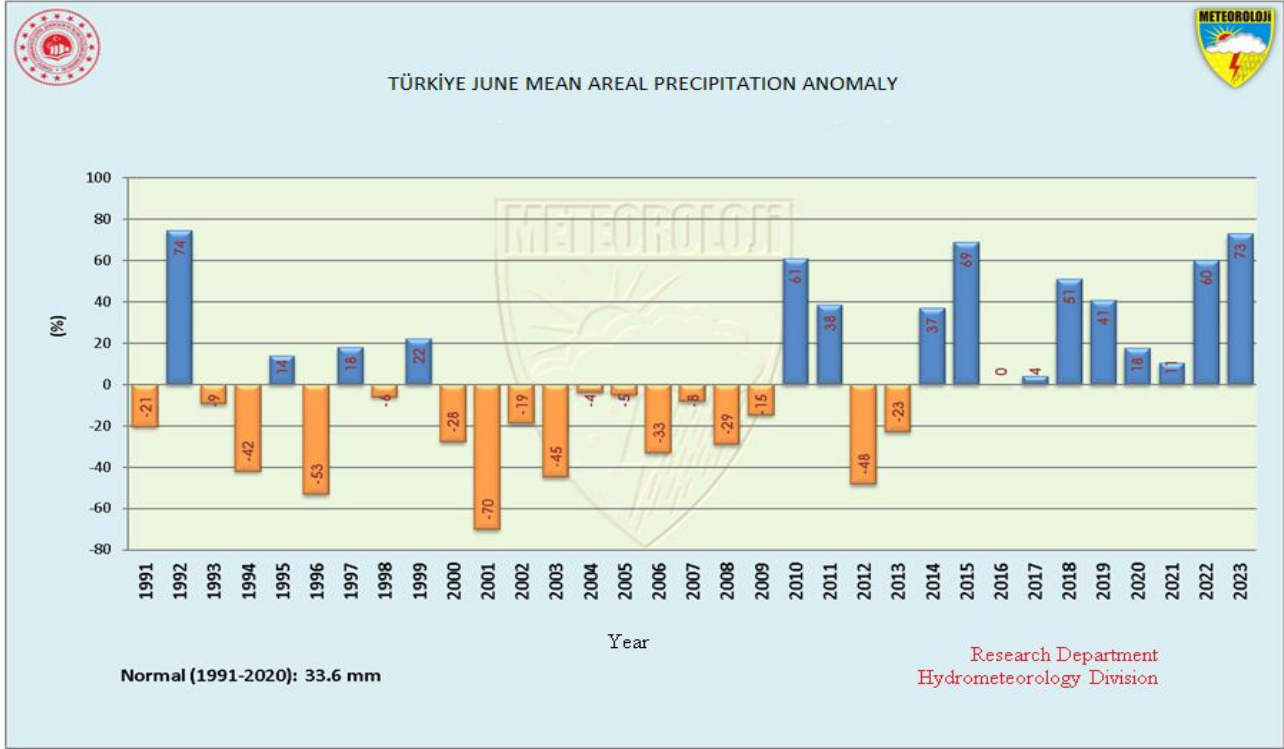


Figure 3. 1 Areal precipitation anomaly in June in Türkiye (Url 2).

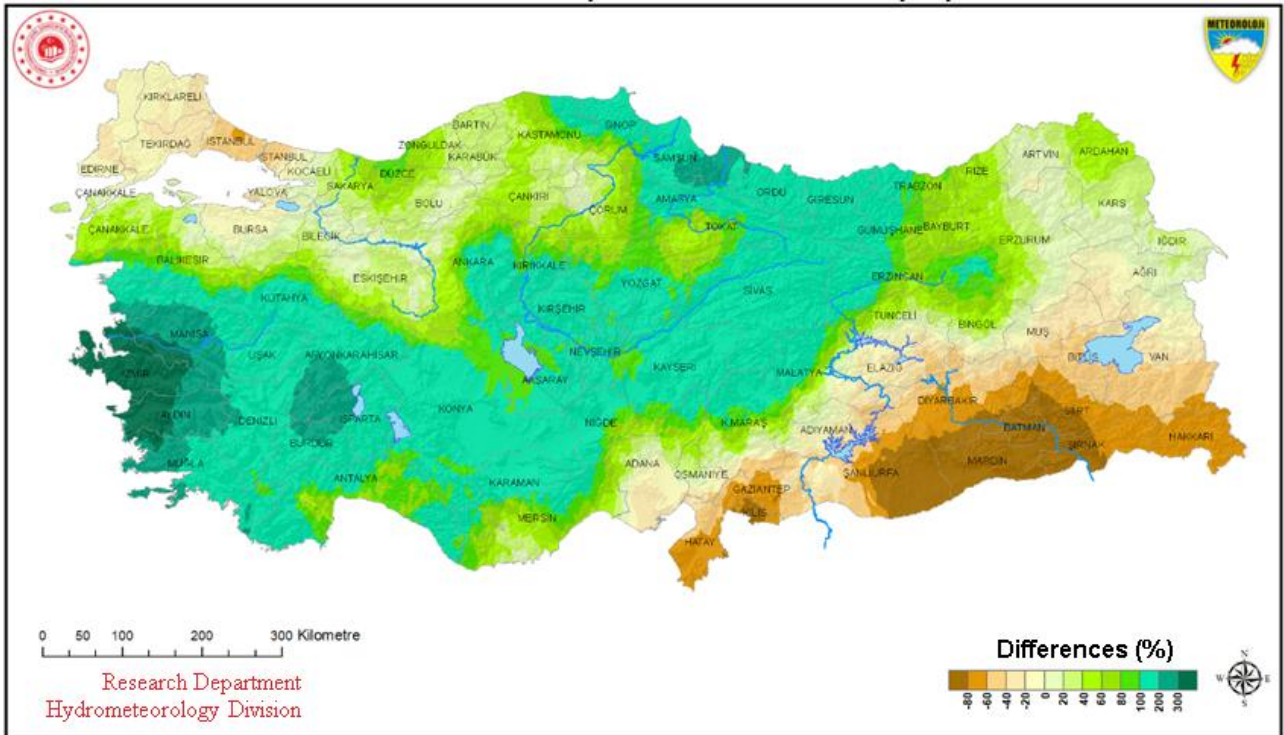


Figure 3. 2 Spatial distribution of mean precipitation anomalies in June 2023 (Url 2).

While an increase of more than 200% is observed in the Izmir, Manisa, Aydın, Muğla, Burdur, Afyon, Isparta and Samsun compared to the normal, in the Hatay, Gaziantep, Kilis, Şanlıurfa, Mardin, Batman, Şırnak, Siirt, Hakkari and Istanbul there was a decrease of more than 60%. The highest precipitation was occurred in Rize with 166.3 mm and lowest recorded with 0.3 mm precipitation in Kilis (Fig. 3.2).

3.1. Regional Precipitation

Regional precipitation in June was above normal (1991-2020) except South East Anatolia regions (Figure 3.3).

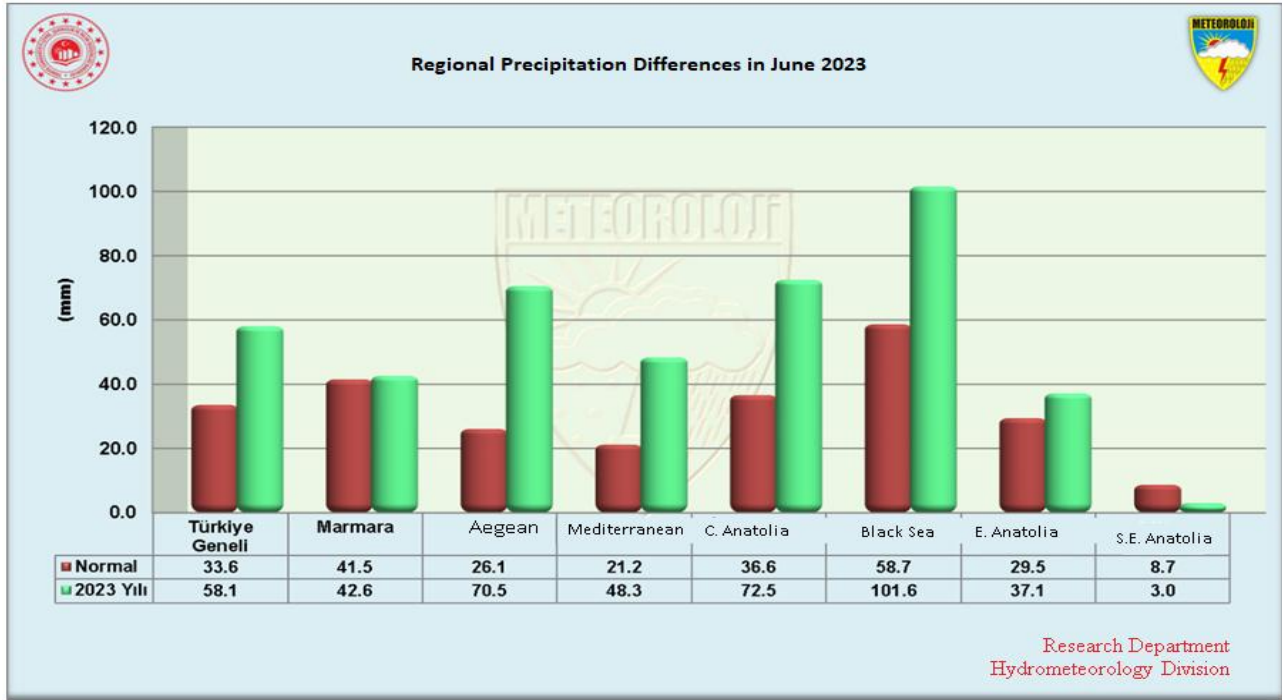


Figure 3.3 Regional Precipitation Differences in June 2023 (Url 2).

3.2. Rainy Days

The average number of rainy days in June 2023 in Türkiye was 10.4, which is above the 1991-2020 normal (6.5 days). While the number of rainy days was 20-25 days in Ordu, Giresun, Trabzon, Rize, Artvin and Ardahan, it was 5 days or less in the Southeastern Anatolia Region, Çanakkale, Muğla, Antalya, Mersin, Adana's coastal areas, Hatay and Hakkari (Fig. 3.4).

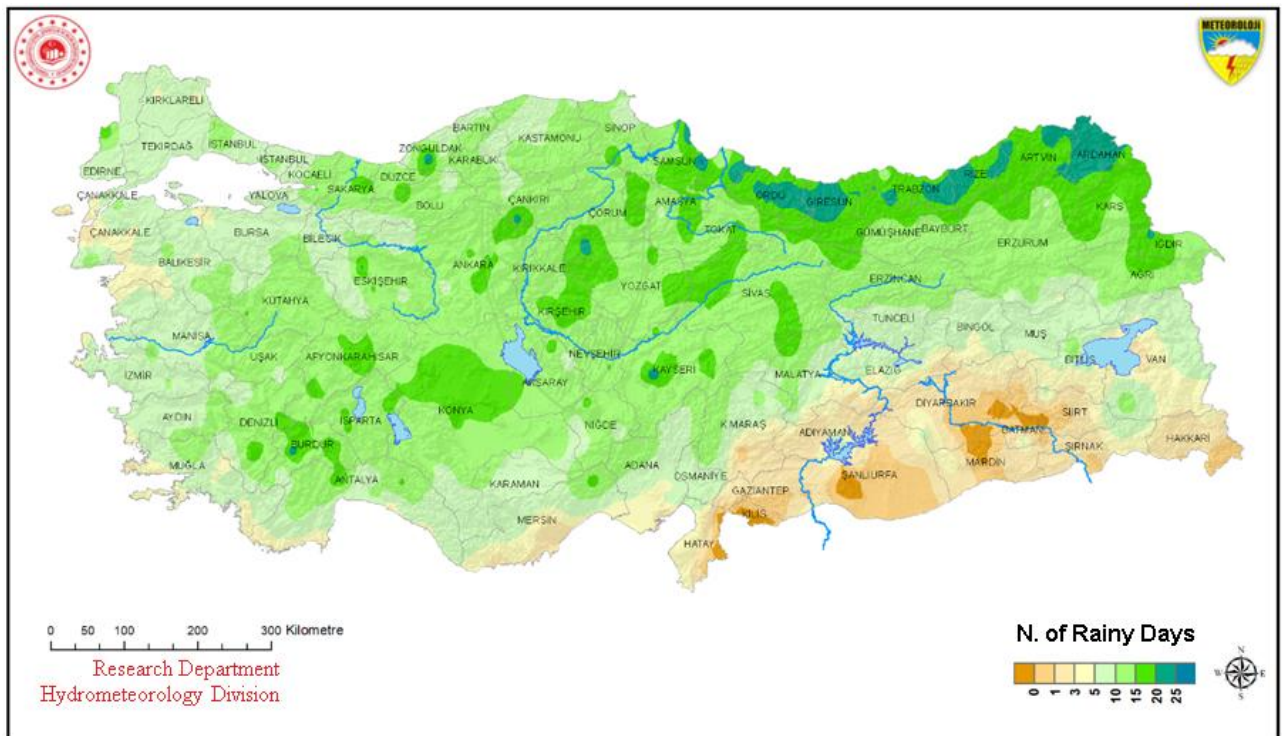


Figure 3.4 Number of rainy days in June 2023 (Url 2).

3. Extreme Meteorological Events

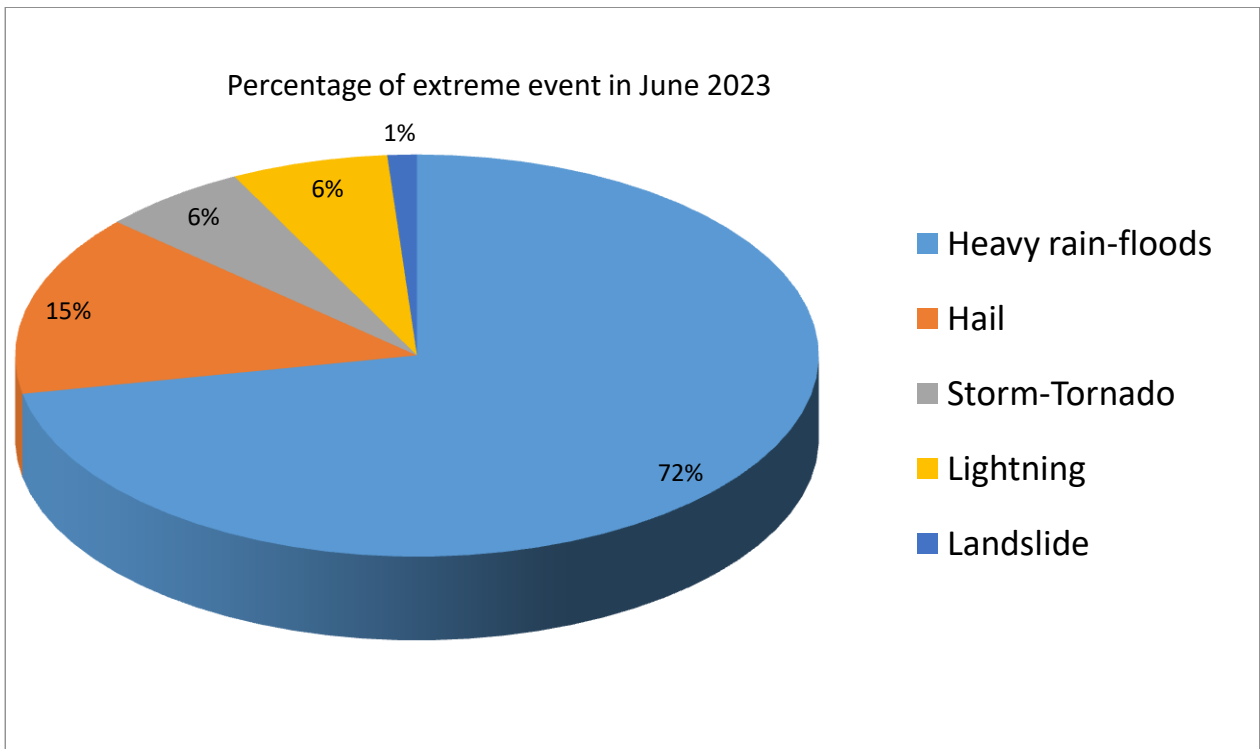


Figure 4.1. Percentage of extreme event in June 2023 (Url 3).

There are 253 extreme events have been reported in June 2023 in TSMS's Kardelen Database. Percentage of extreme events recorded in June 2023 were heavy rain-flood (72%), hail (15%), storm-tornado (6%), lightning (6%) and landslide (%1) (Fig. 4.1).

References

1. 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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