



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



State of the Climate in July 2023



Climate and Agricultural Meteorology Department
Research Department

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

State of the Climate in July 2023

**Climate and Agricultural Meteorology
Department**

Research Department

2023

CONTENT

1. Introduction.....	1
2. Temperature	2
3. Precipitation	5
4. Extreme Meteorological Events.....	7
References	8

1. Introduction

The mean temperature of Türkiye in July 2023 was 25.7°C. This value was 0.7°C above the 1991-2020's normal (25.0°C).

Mean temperatures in July 2023 are below normal in Boyabat and Tercan, above normal Marma, western Aegean and Mediterranean coast, Erciş, Siirt, Gaziantep, Kilis, Şırnak, Cizre, Akçakale and near normal in other places of Türkiye.

Regional temperatures were above the long-term mean (1991-2020) in most of the regions except Eastern Anatolia Regions.

The lowest temperature was observed in Kangal, Sivas with 1.1°C and the highest temperature was observed in Cizre with 47.5°C. 12 stations have updated their extreme maximum temperatures.

Türkiye's areal mean precipitation in July 2023 was 18.4 mm. This value is approximately 18% above the 1991-2020's normal (15.6 mm).

While the precipitation in July increased by more than 100% in the Western Black Sea, Samsun, Ordu, Giresun, Trabzon, Gümüşhane, Amasya, Tokat, Çorum, Aydın, Bilecik and the eastern parts of İzmir, Yozgat and northern parts of Sivas, Balıkesir, Manisa, A decrease of more than 80% in parts of Muğla, Burdur, Isparta, Ankara, Hatay, Gaziantep, Kilis, Kahramanmaraş, Malatya, Adıyaman, Şanlıurfa, Mardin, Batman, Şırnak, Siirt, Hakkari and Van, and the western parts of İzmir and Antalya has shown.

In July, the highest precipitation was occurred in Zonguldak with 187.5 mm and lowest recorded with 0.1 mm precipitation in Kilis.

Regional precipitation in July was above normal (1991-2020) in Black Sea region while the others have shown below it.

The average number of rainy days in July 2023 in Türkiye was 3.6, which is above the 1991-2020 normal (3.2 days). While the number of rainy days was between 10-15 days in the Eastern Black Sea coast and around Ardahan, it decreased to 1 day in the coastal Aegean, Western Mediterranean, Southeastern Anatolia Region, Çanakkale, Balıkesir, Isparta, Mersin and Hatay.

There are 83 extreme events have been reported in July 2023 in TSMS's Kardelen Database. Percentage of extreme events recorded in July 2023 were heavy rain-flood (59%), storm-tornado (13%), hail (11%), lightning (11%), landslide (%5) and heatwave (%1) (Fig. 4.1).

2. Temperature

The mean temperature of Türkiye in July 2023 was 25.7°C. This value was 0.7°C above the 1991-2020's normal (25.0°C) (Fig.2.1).

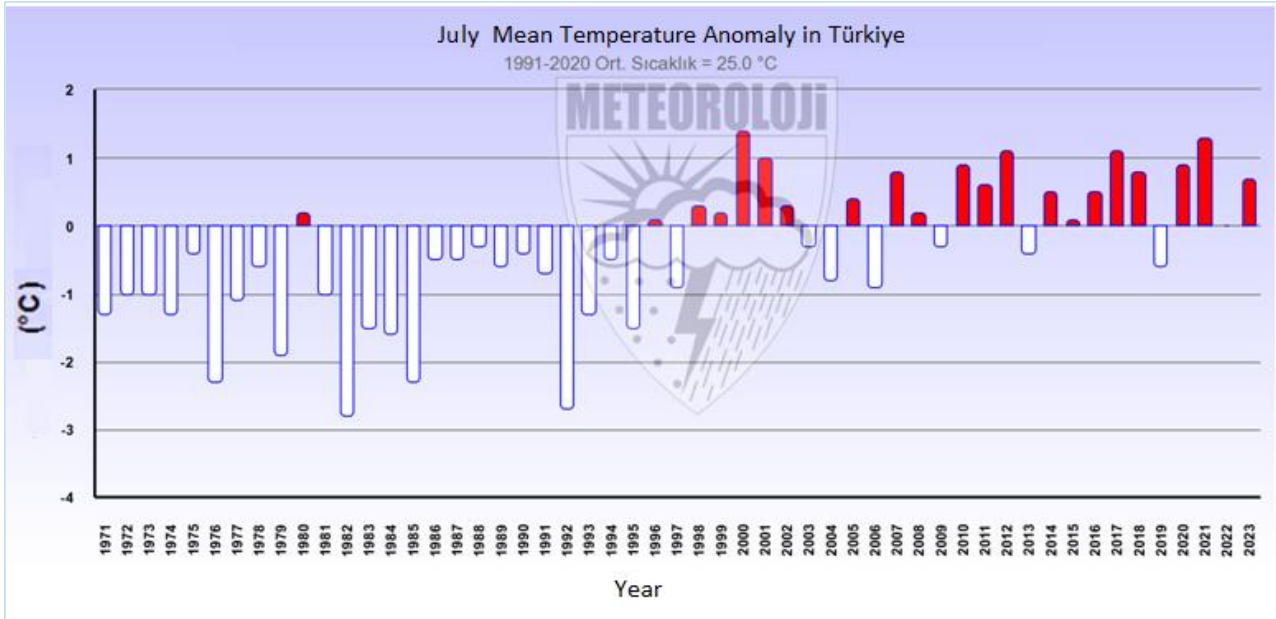


Figure 2.1 Monthly mean temperature anomalies in July (Url 1).

Mean temperatures in July 2023 are below normal in Boyabat and Tercan, above normal Marmara, western Aegean and Mediterranean coast, Erciş, Siirt, Gaziantep, Kilis, Şırnak, Cizre, Akçakale and near normal in other places of Türkiye. (Fig.2.2).

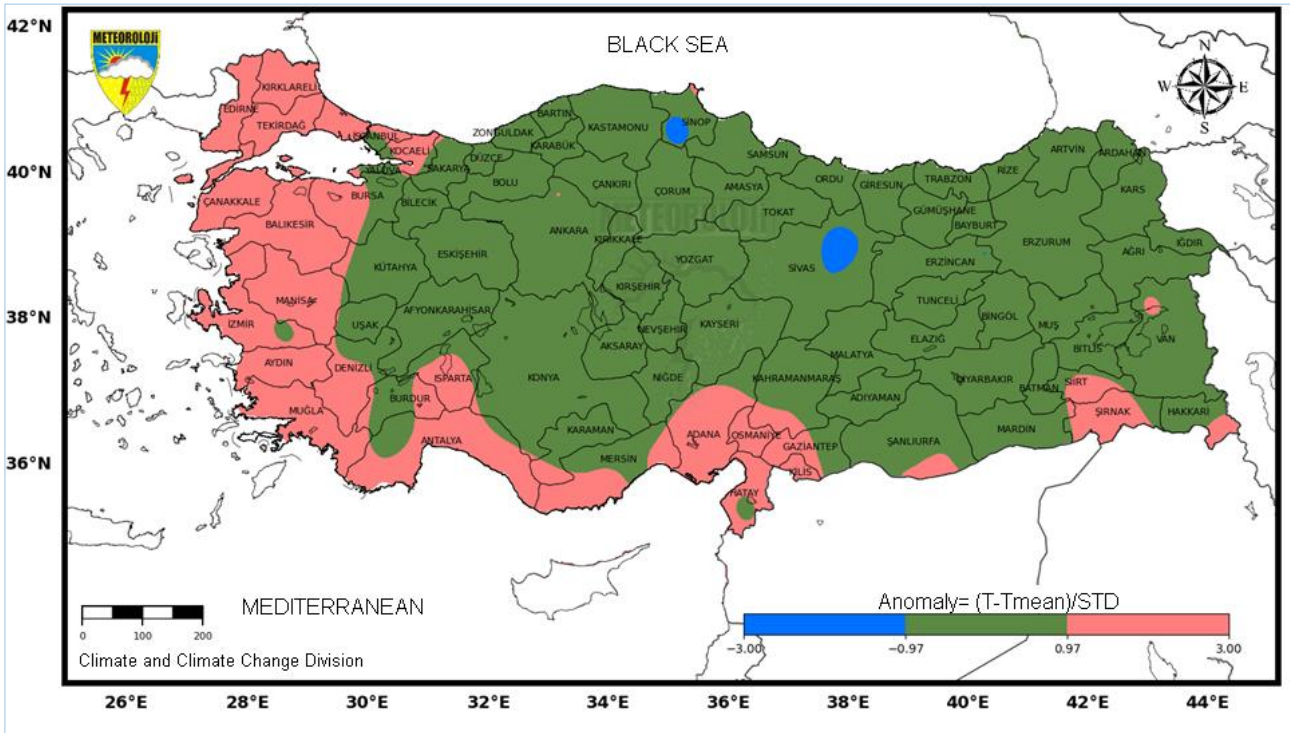


Figure 2.2. Spatial distribution of mean temperature anomaly in Türkiye in July 2023 (Url 1).

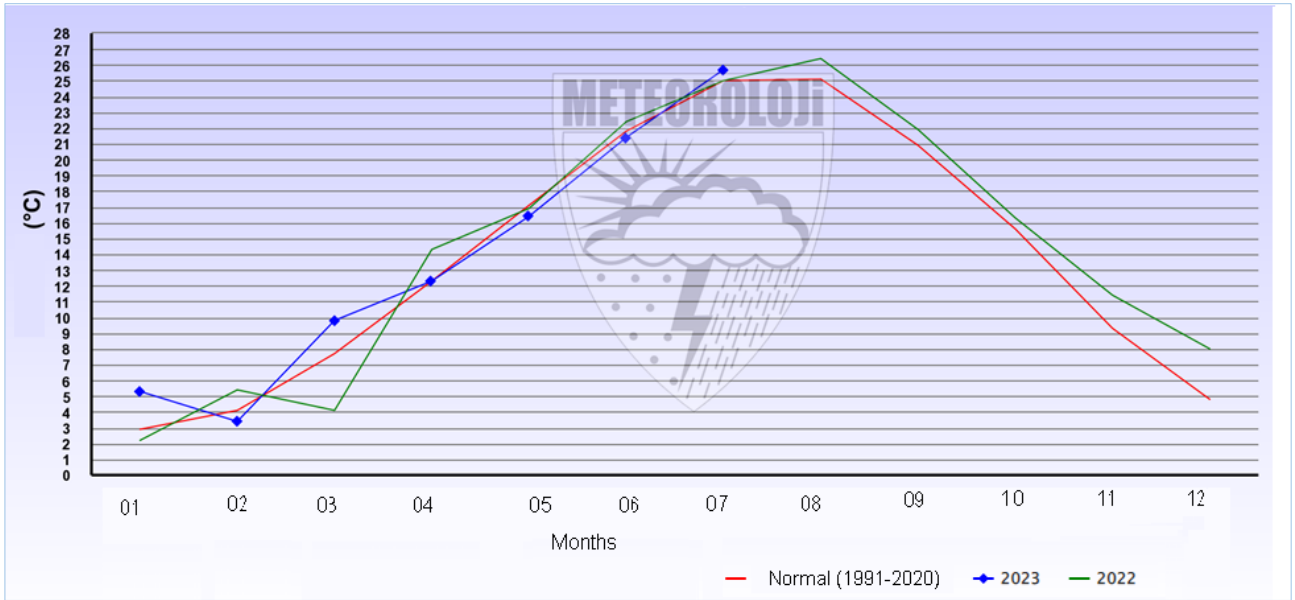


Figure 2. 3 The difference of the monthly mean temperature in 2023 from normal (1991-2020) (Url 1).

The monthly mean temperature of July was above its normal.

2.1. Regional Temperature

Regional temperatures were above the long-term mean (1991-2020) in most of the regions except Eastern Anatolia Regions (Fig. 2.4).

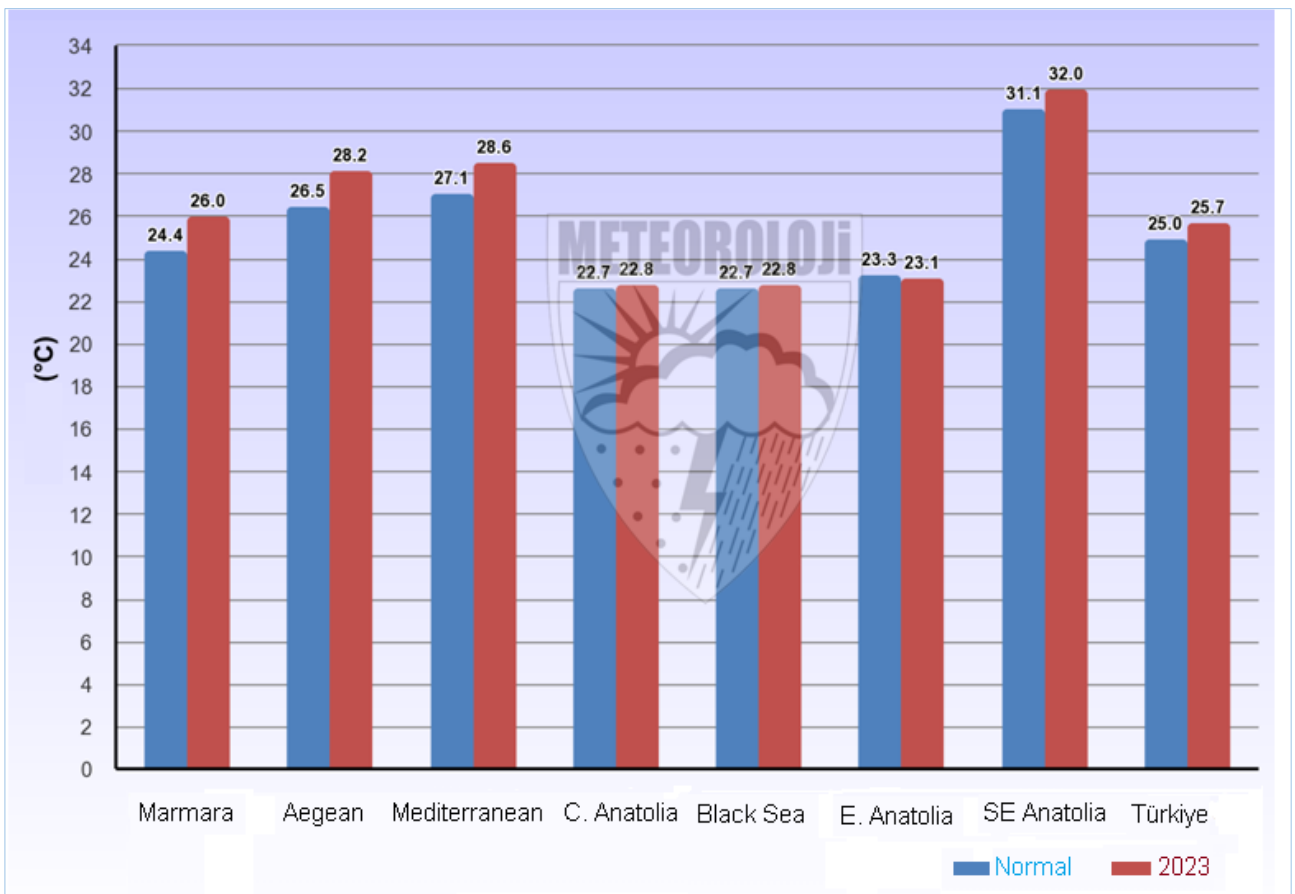


Figure 2. 4 Regional mean temperature differences in July 2023 (Url 1).

2.2. Extreme Temperature

The lowest temperature was observed in Kangal, Sivas with 1.1°C and the highest temperature was observed in Cizre with 47.5°C. 12 stations have updated their extreme maximum temperatures (Table 1).

Table 1. New extreme maximum temperature recording stations

Station	Long term Max. Temp (°C)	July 2023 Max. Temp. (°C)	Diff. (°C)
BOZCAADA	36.5	39.1	2.6
ÇANAKKALE	39.1	39.2	0.1
BANDIRMA	42.4	43.3	0.9
FLORYA	37.4	40.5	3.1
BALIKESİR/GÖNEN	42.2	44.0	1.8
İZMİR BÖLGE	42.6	43.2	0.6
ÇEŞME	38.1	38.8	0.7
SİLİFKE	42.3	42.6	0.3
MANAVGAT	44.5	44.7	0.2
SAMANDAĞ	37.0	38.9	1.9
İNEBOLU	35.2	37.1	1.9
CİDE	35.3	35.9	0.6

3. Precipitation

Türkiye's areal mean precipitation in July 2023 was 18.4 mm. This value is approximately 18% above the 1991-2020's normal (15.6 mm) (Fig. 3.1)

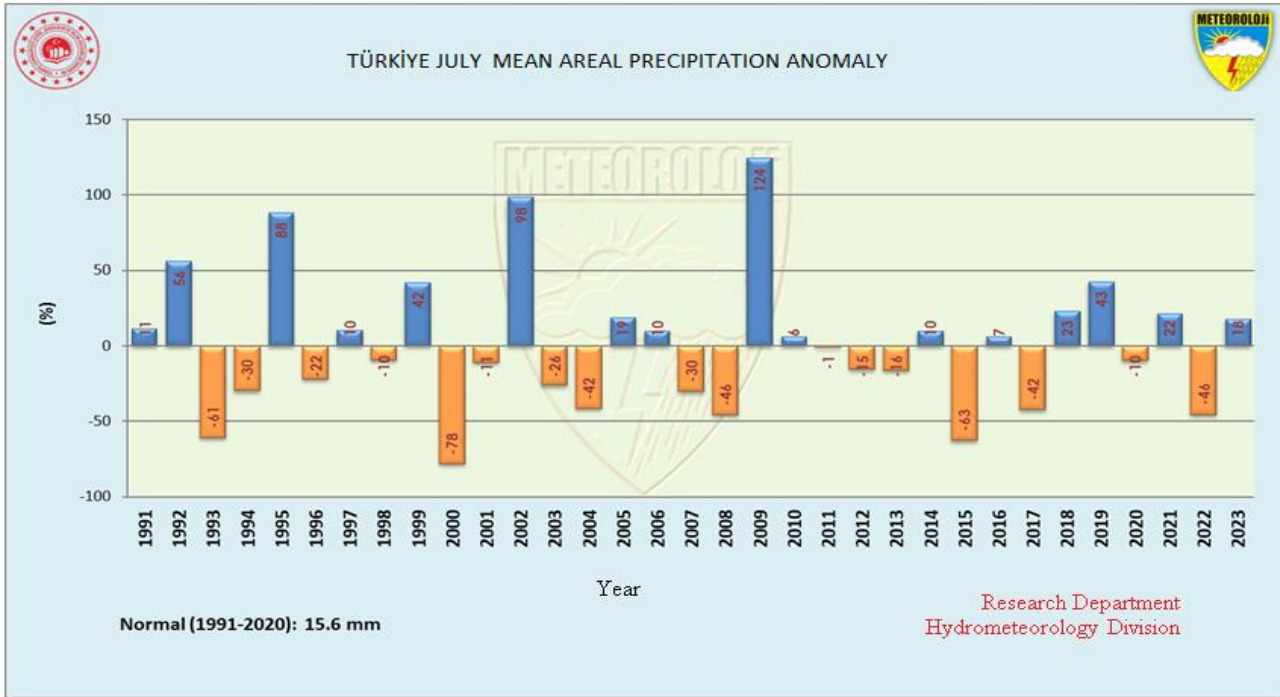


Figure 3. 1 Areal precipitation anomaly in July in Türkiye (Url 2).

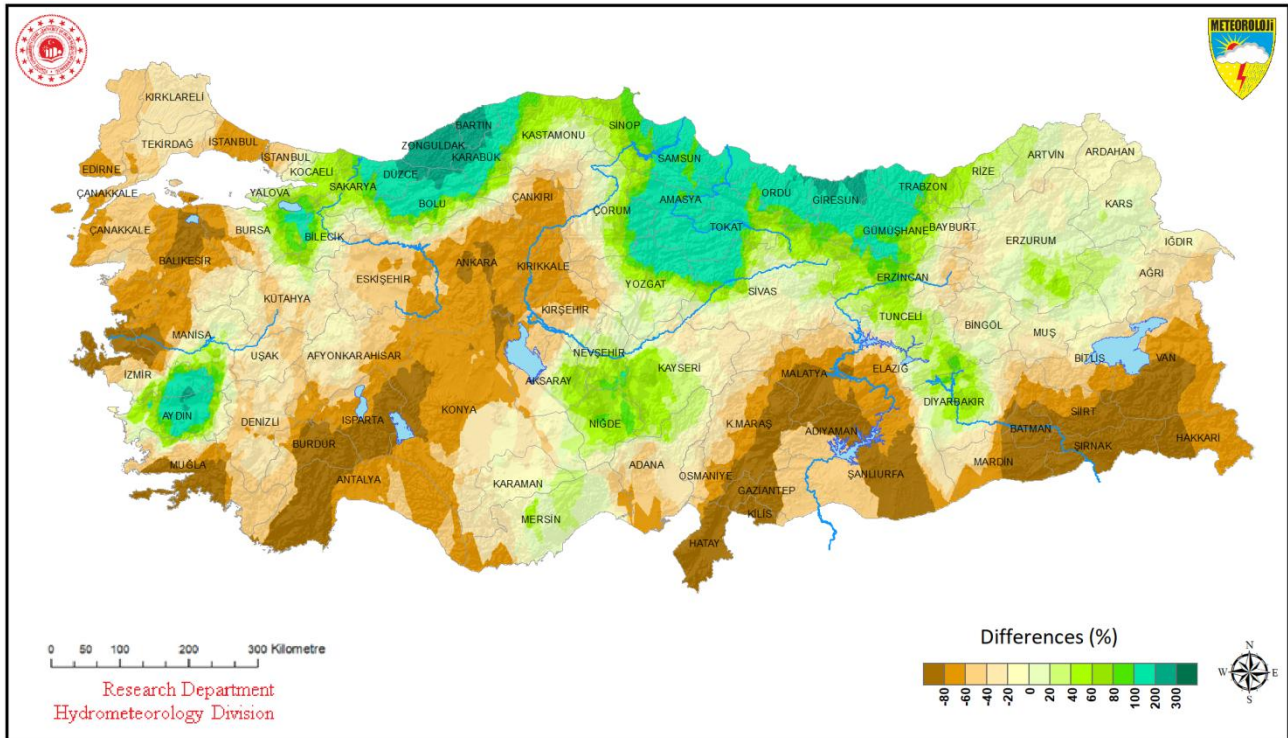


Figure 3. 2 Spatial distribution of mean precipitation anomalies in July 2023 (Url 2).

While the precipitation in July increased by more than 100% in the Western Black Sea, Samsun, Ordu, Giresun, Trabzon, Gümüşhane, Amasya, Tokat, Çorum, Aydın, Bilecik and the eastern parts of İzmir, Yozgat and northern parts of Sivas, Balıkesir, Manisa, A decrease of more than 80% in parts of Muğla, Burdur, Isparta, Ankara, Hatay, Gaziantep, Kilis, Kahramanmaraş, Malatya, Adıyaman, Şanlıurfa, Mardin, Batman, Şırnak, Siirt, Hakkari and Van, and the western parts of İzmir and Antalya has shown. In July, the highest precipitation was occurred in Zonguldak with 187.5 mm and lowest recorded with 0.1 mm precipitation in Kilis (Fig. 3.2).

3.1. Regional Precipitation

Regional precipitation in July was above normal (1991-2020) in Black Sea region while the others have shown below it (Figure 3.3).

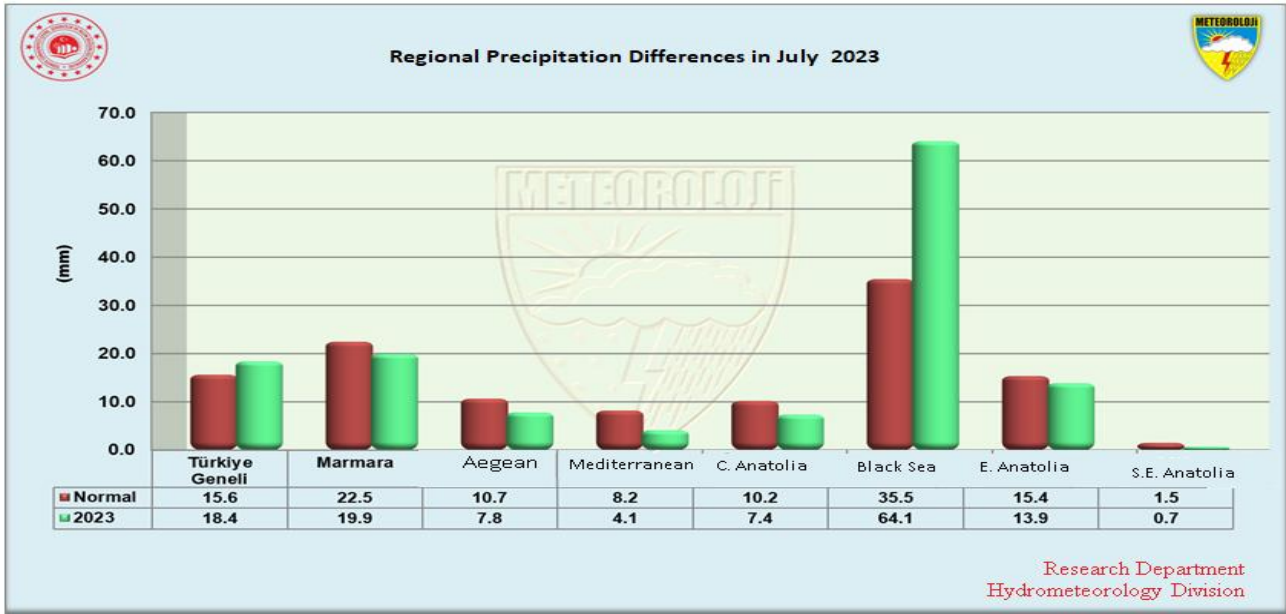


Figure 3.3 Regional Precipitation Differences in July 2023 (Url 2).

3.2. Rainy Days

The average number of rainy days in July 2023 in Türkiye was 3.6, which is above the 1991-2020 normal (3.2 days). While the number of rainy days was between 10-15 days in the Eastern Black Sea coast and around Ardahan, it decreased to 1 day in the coastal Aegean, Western Mediterranean, Southeastern Anatolia Region, Çanakkale, Balıkesir, Isparta, Mersin and Hatay. (Fig. 3.4).

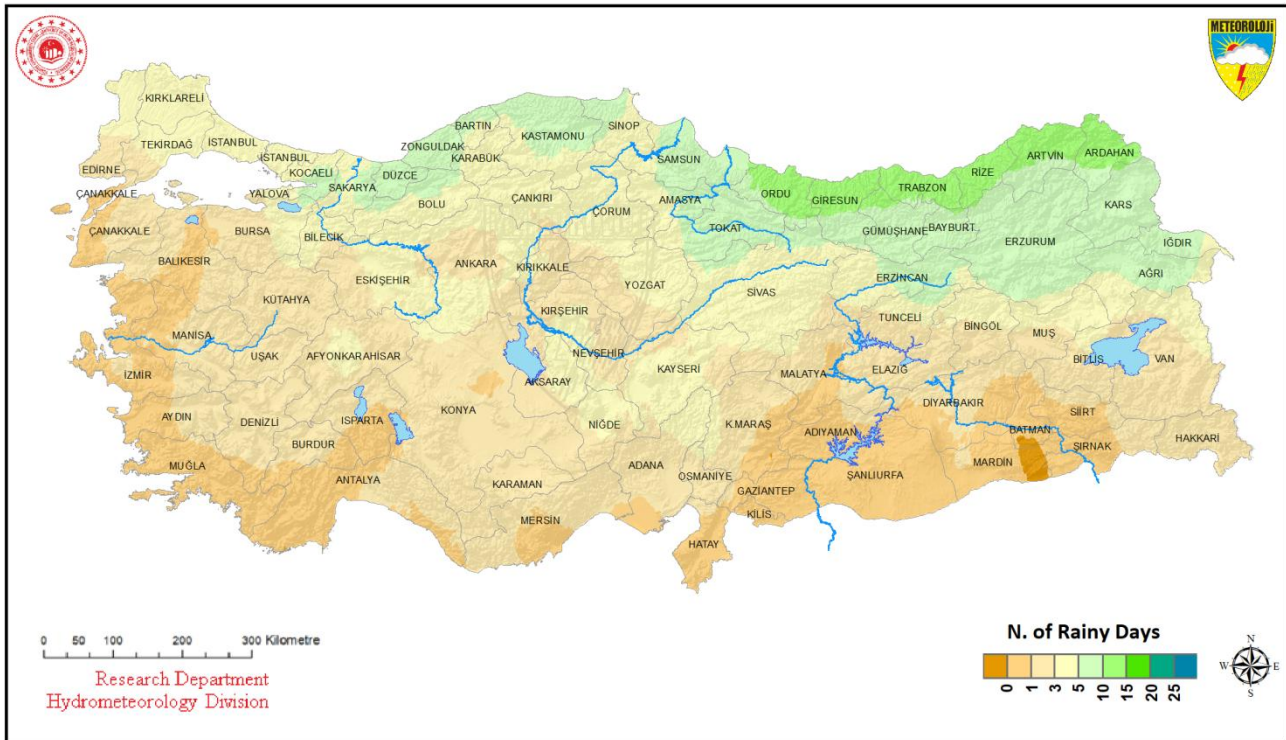


Figure 3.4 Number of rainy days in July 2023 (Url 2).

3. Extreme Meteorological Events

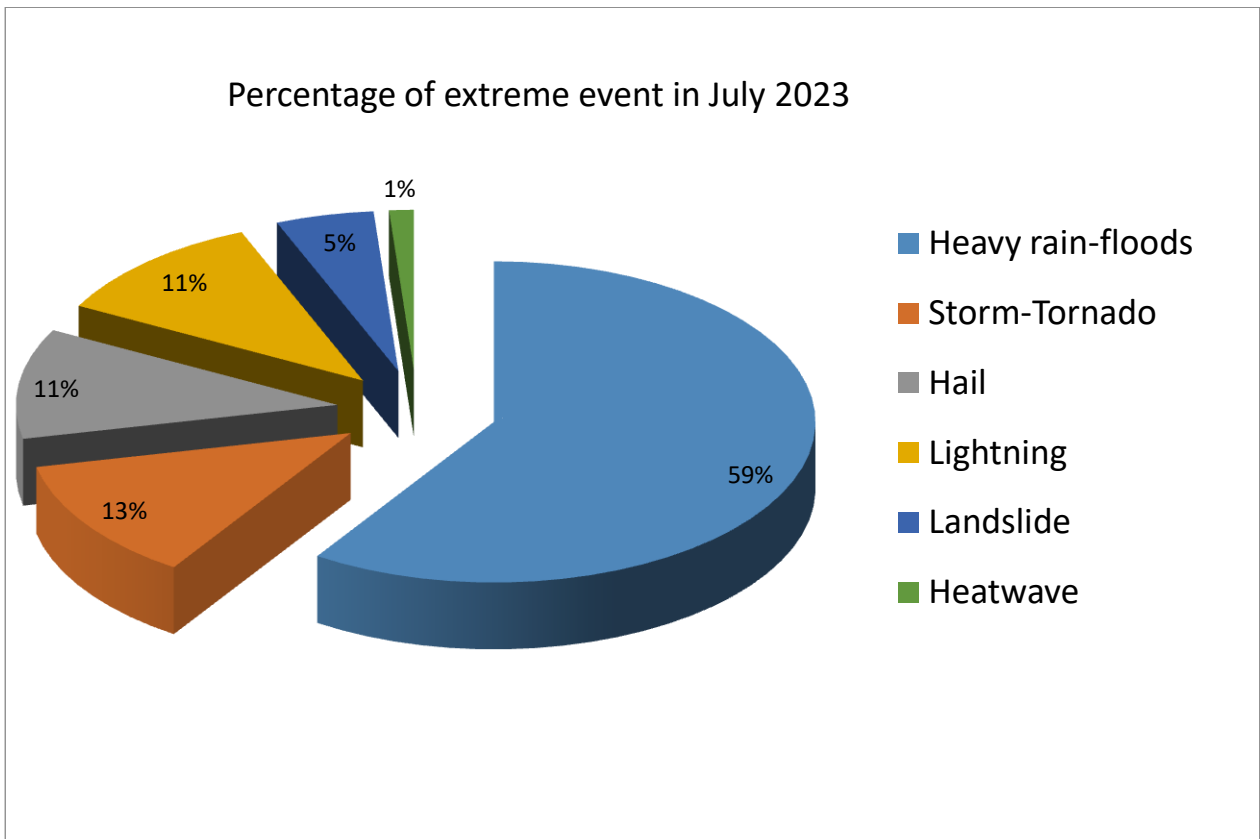


Figure 4.1. Percentage of extreme event in July 2023 (Url 3).

There are 83 extreme events have been reported in July 2023 in TSMS's Kardelen Database. Percentage of extreme events recorded in July 2023 were heavy rain-flood (59%), storm-tornado (13%), hail (11%), lightning (11%), landslide (5%) and heatwave (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>



Turkish State Meteorological Service
Kütükçü Alibey Cad. No:4 06120 Kalaba/ANKARA
Tel : (+90 312) 359 75 45
Faks : (+90 312) 360 25 51
<https://mgm.gov.tr>

