



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



State of the Climate in May 2023



**Climate and Agricultural Meteorology Department
Research Department**

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1. Introduction

The mean temperature of Türkiye in May 2023 was 16.4°C. This value was 0.7°C below the 1991-2020's normal (17.1°C).

Mean temperatures in May 2023 are above normal in Kale (Demre), below normal in Kütahya, Akhisar, Manisa, Afyonkarahisar, Denizli, Muğla, Datça, Marmaris, Dursunbey, Beyşehir, Tefenni, Korkuteli, Elmalı, Eskişehir, Akşehir, Yunak, Ilgın, Seydişehir, Ulukışla, Zonguldak, İnebolu, Hopa, Kastamonu, Karabük, Merzifon, Cide, Boyabat, Tosya, Osmancık, Nallıhan and Tunceli; while it is was near normal in other great parts of the country.

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

The lowest temperature was observed in Erzurum with -4.1°C and the highest temperature was observed in İskenderun with 37.2°C. There were no new extreme temperatures were recorded.

Türkiye's areal mean precipitation in May 2023 was 66.8 mm. This value is approximately 27% above the 1991-2020's normal (52.7 mm).

Precipitation showed a 100% increase in Kütahya, Manisa, İzmir, Aydın, Muğla, Uşak, Denizli, Burdur, Afyon, Antalya, Çankırı, Ankara, Erzincan and Tunceli. while it was 60% below normal in Şanlıurfa, Mardin ve Hatay.

In May, the highest precipitation was occurred in Uşak with 150.8 mm and lowest recorded with 14.5 mm precipitation in Mardin.

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

The average number of rainy days in May 2023 in Türkiye was 13.8, which is above the 1991-2020 normal (10.2 days). The number of rainy days was between 20-25 days in the Afyonkarahisar, Uşak, Isparta, Kütahya, Ordu, Giresun, Artvin and Ardahan, while it was 5-10 days in the Coastal Aegean, southern parts of the Mediterranean Region, Istanbul, Hatay and Southeastern Anatolia Region..

There are 158 extreme events have been reported in May 2023 in TSMS's Kardelen Database. Percentage of extreme events recorded in May 2023 were heavy rain-flood (50%), hail (32%), storm-tornado (10%) and lightning (8%).

2. Temperature

The mean temperature of Türkiye in May 2023 was 16.4°C. This value was 0.7°C below the 1991-2020's normal (17.1°C) (Fig.2.1).

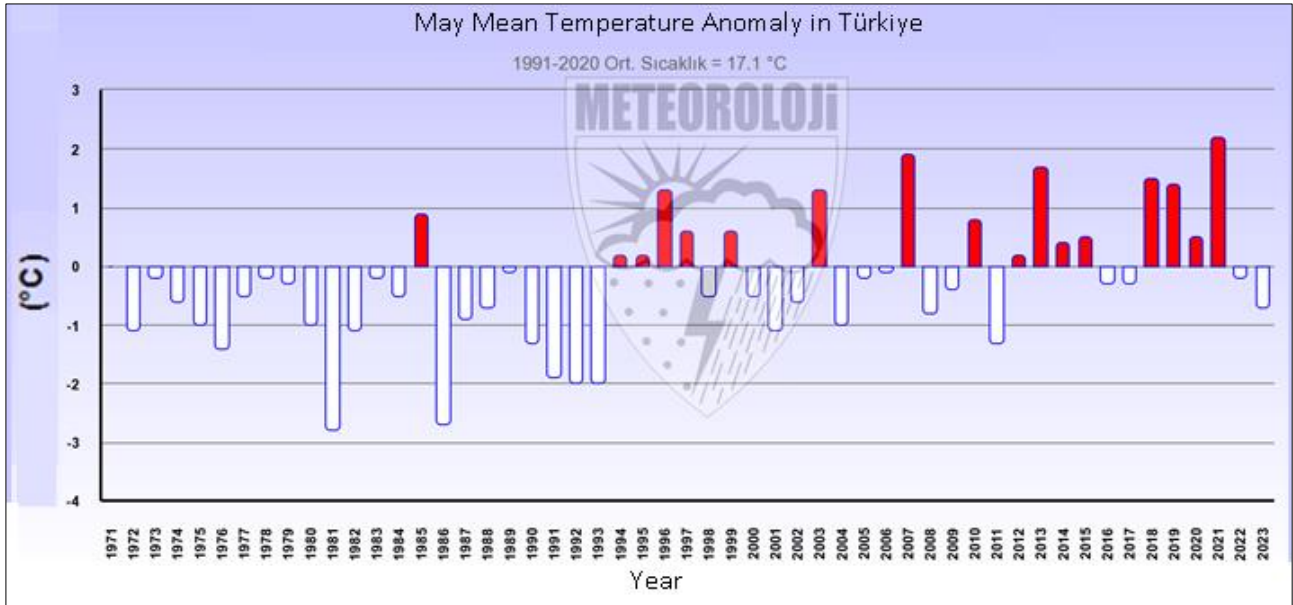


Figure 2.1 Monthly mean temperature anomalies in May (Url 1).

Mean temperatures in May 2023 are above normal in Kale (Demre), below normal in Kütahya, Akhisar, Manisa, Afyonkarahisar, Denizli, Muğla, Datça, Marmaris, Dursunbey, Beyşehir, Tefenni, Korkuteli, Elmalı, Eskişehir, Akşehir, Yunak, Ilgın, Seydişehir, Ulukışla, Zonguldak, İnebolu, Hopa, Kastamonu, Karabük, Merzifon, Cide, Boyabat, Tosya, Osmancık, Nallıhan, and Tunceli; while it is was near normal in other great parts of the country (Fig.2.2).

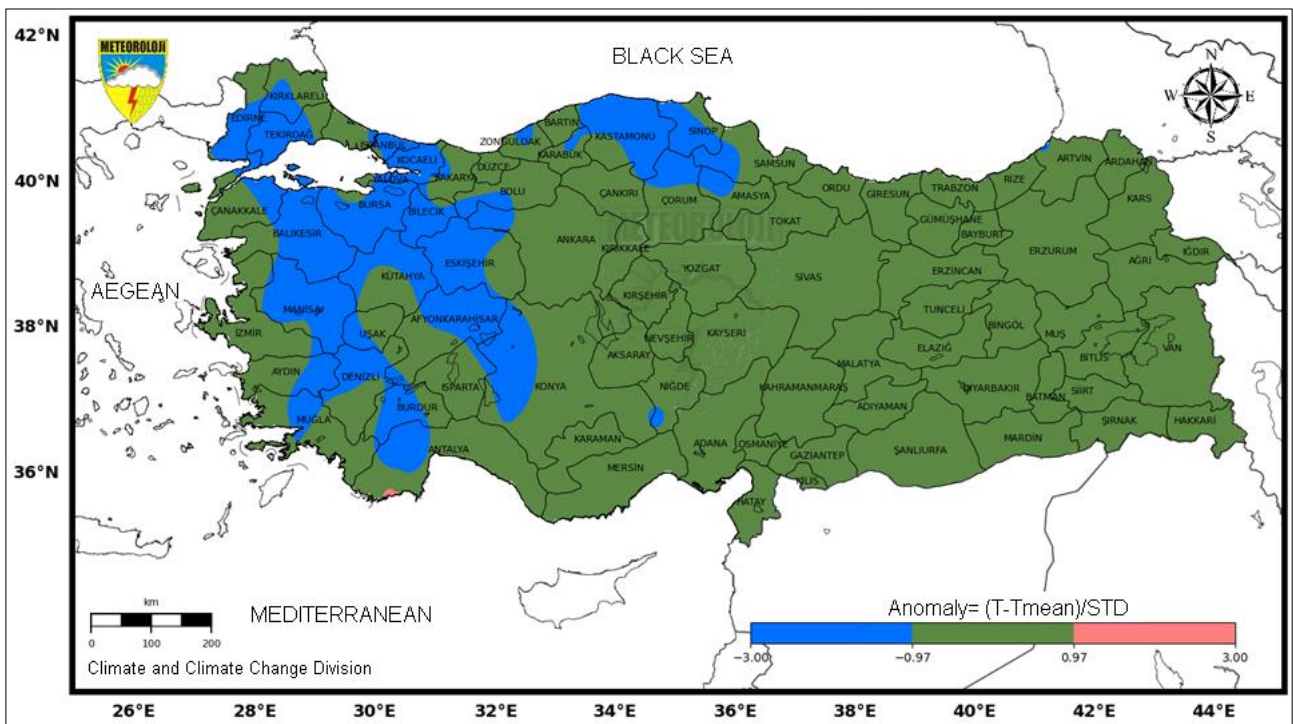


Figure 2.2. Spatial distribution of mean temperature anomaly in Türkiye in May 2023 (Url 1).

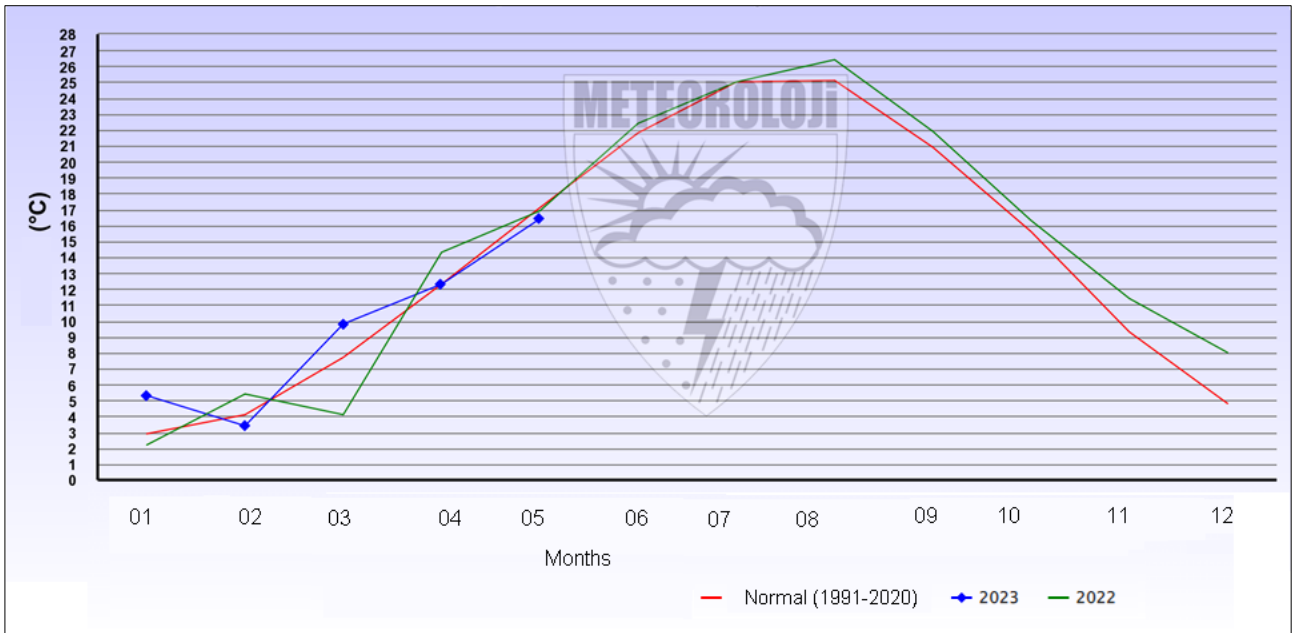


Figure 2. 3 The difference of the monthly mean temperature in 2023 from normal (1991-2020) (Url 1).

The monthly mean temperatures of May was below normal.

2.1. Regional Temperature

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

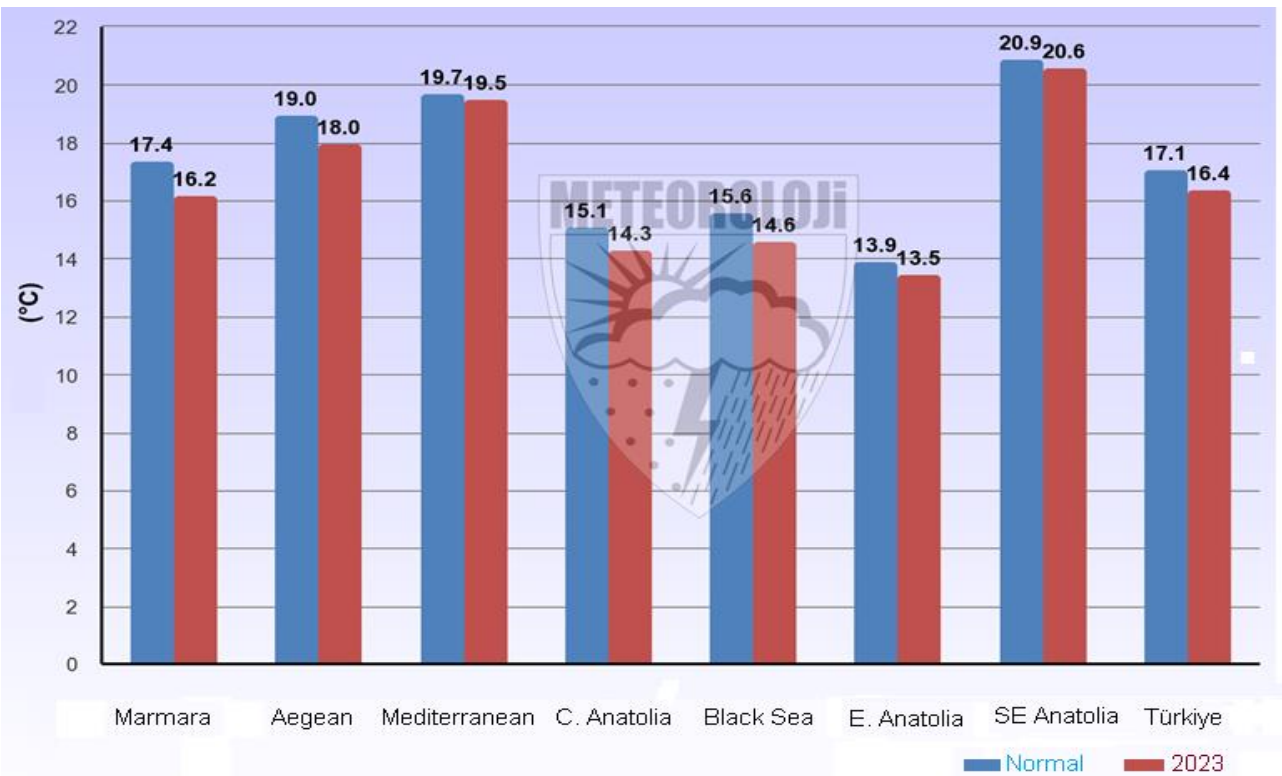


Figure 2. 4 Regional mean temperature differences in May 2023 (Url 1).

2.2. Extreme Temperature

The lowest temperature was observed in Erzurum with -4.1°C and the highest temperature was observed in İskenderun with 37.2°C . There were no new extreme temperatures were recorded.

3. Precipitation

Türkiye's areal mean precipitation in May 2023 was 66.8 mm. This value is approximately 27% above the 1991-2020's normal (52.7 mm) (Fig. 3.1)

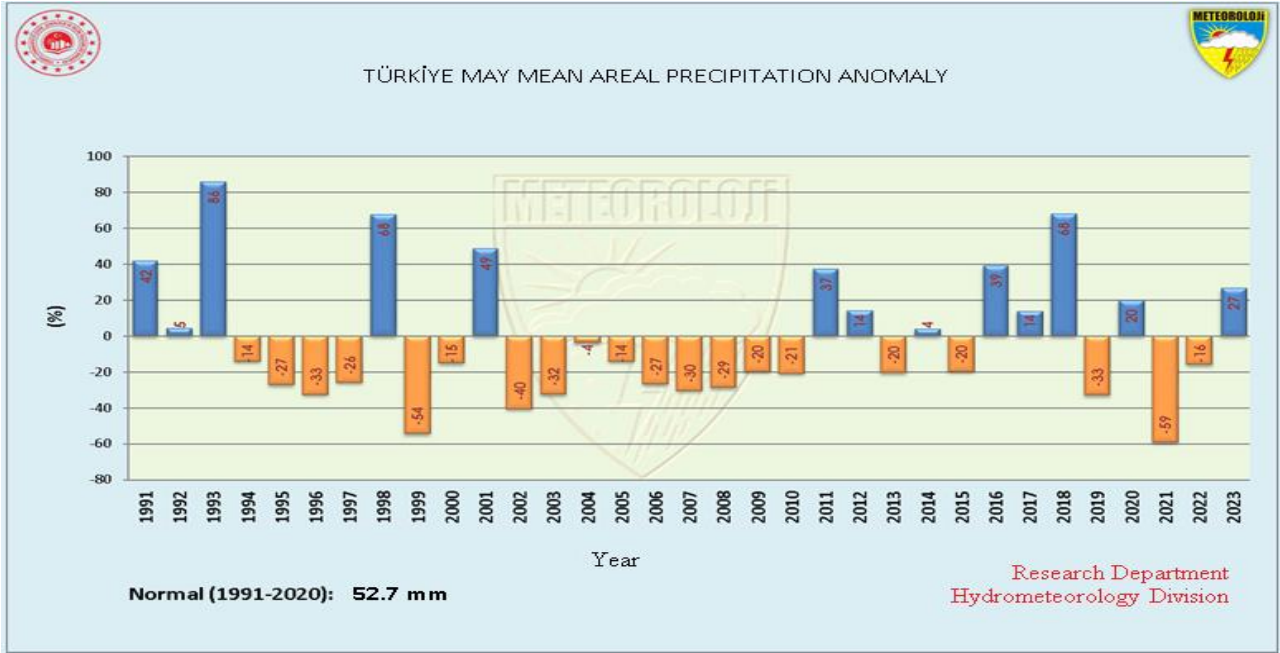


Figure 3. 1 Areal precipitation anomaly in May in Türkiye (Url 2).

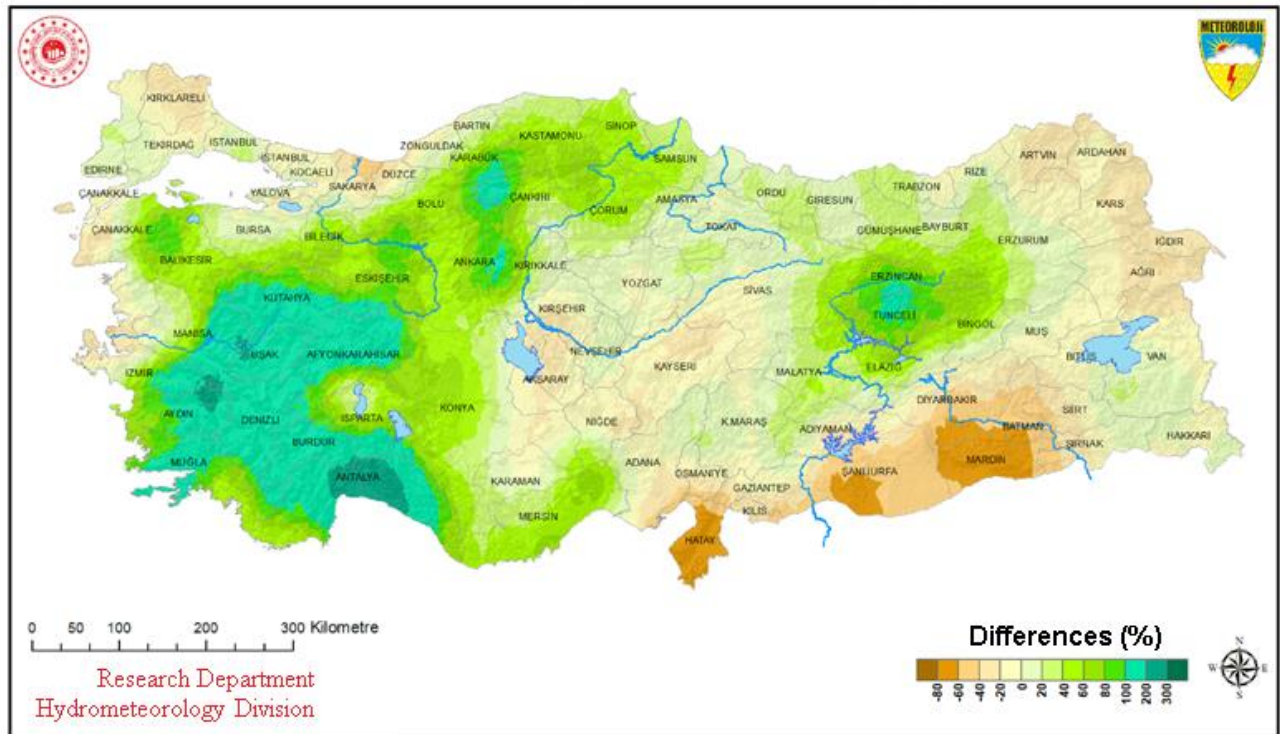


Figure 3. 2 Spatial distribution of mean precipitation anomalies in May 2023 (Url 2).

Precipitation showed a 100% increase in Kütahya, Manisa, İzmir, Aydın, Muğla, Uşak, Denizli, Burdur, Afyon, Antalya, Çankırı, Ankara, Erzincan and Tunceli. while it was 60% below normal in Şanlıurfa, Mardin ve Hatay. In May, the highest precipitation was occurred in Uşak with 150.8 mm and lowest recorded with 14.5 mm precipitation in Mardin (Fig. 3.2).

3.1. Regional Precipitation

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

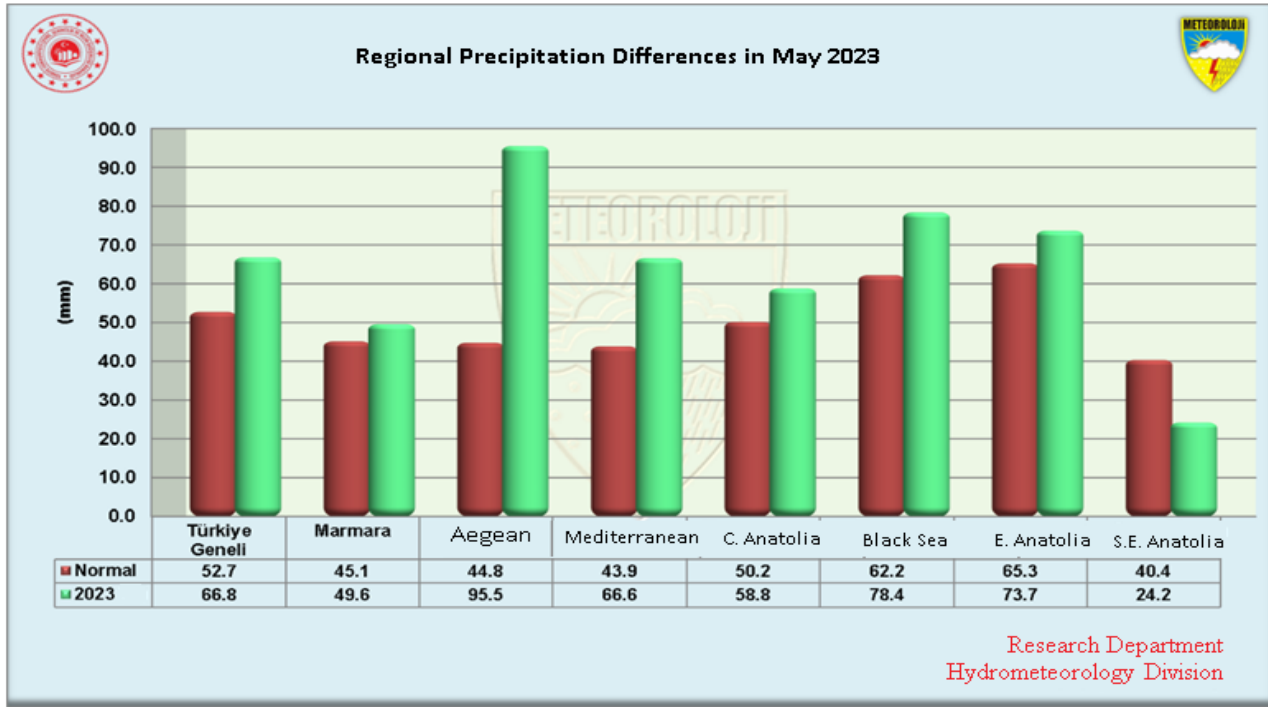


Figure 3. 3 Regional Precipitation Differences in May 2023 (Url 2).

3.2. Rainy Days

The average number of rainy days in May 2023 in Türkiye was 13.8, which is above the 1991-2020 normal (10.2 days). The number of rainy days was between 20-25 days in the Afyonkarahisar, Uşak, Isparta, Kütahya, Ordu, Giresun, Artvin and Ardahan, while it was 5-10 days in the Coastal Aegean, southern parts of the Mediterranean, Istanbul, Hatay and S. Anatolia Region. (Fig. 3.4).

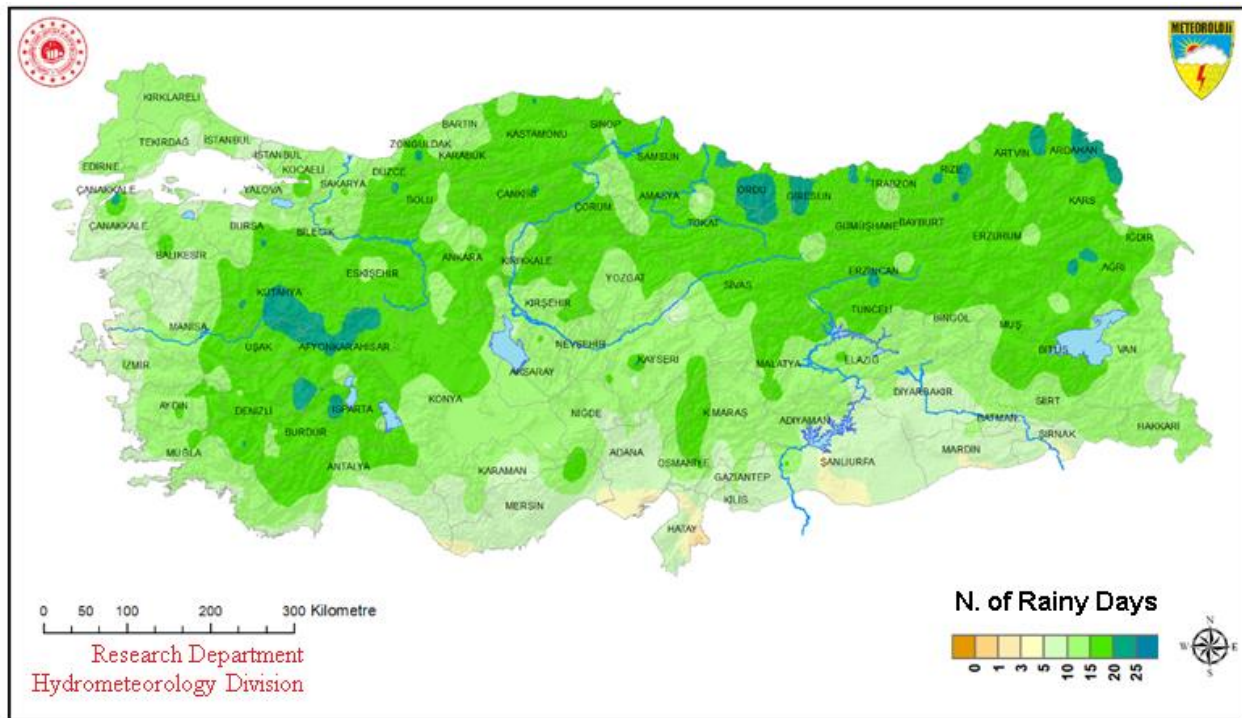


Figure 3. 4 Number of rainy days in May 2023 (Url 2).

3. Extreme Meteorological Events

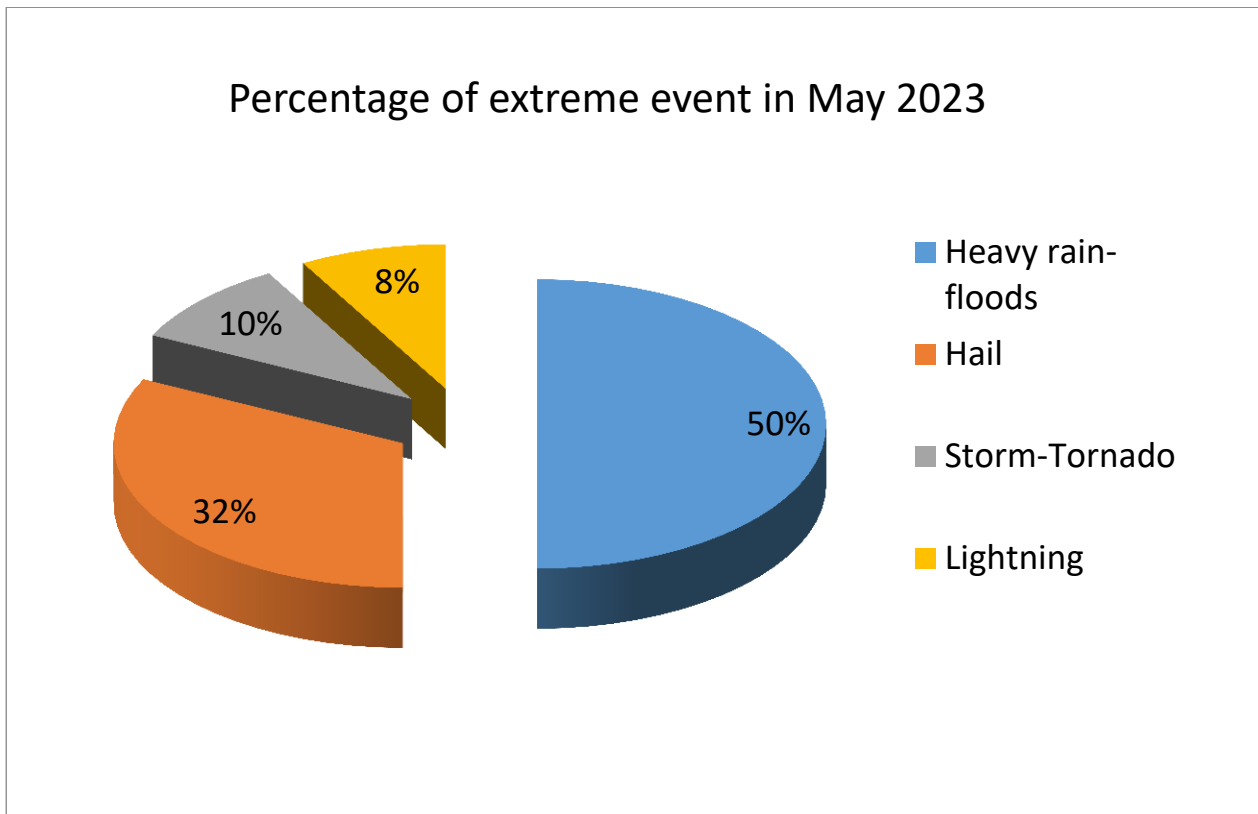


Figure 4.1. Percentage of extreme event in May 2023 (Url 3).

There are 158 extreme events have been reported in May 2023 in TSMS's Kardelen Database. Percentage of extreme events recorded in May 2023 were heavy rain-flood (50%), hail (32%), storm-tornado (10%) and lightning (8%) (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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