



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



State of the Climate in March 2024



Climate and Agricultural Meteorology Department
Research Department

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1. Introduction

The mean temperature of Türkiye in March 2024 was 9.2°C. This value was 1.5°C above the 1991-2020's normal (7.7°C).

Mean temperatures in March 2024 were above normal in whole Türkiye, except some part of South Eastern Anatolia.

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

The lowest temperature was observed in Özalp with -22.3°C and the highest temperature was observed in Adana with 31.9°C. There were 22 new extreme maximum temperature records.

Türkiye's areal mean precipitation in March 2024 was 69.5 mm. This value is approximately 13% above the 1991-2020's normal (61.2 mm).

During the March, rainfall were increased in east and south of Eastern Anatolia, east of South Eastern Anatolia, in Hakkari, Şırnak, Siirt and Van. On the contrary an decreased of 40% compared to normal was recorded in Antalya, Konya, Bilecik.

In March, the highest precipitation was occurred in Şırnak with 207.9 mm and lowest recorded with 29 mm precipitation in Kırıkkale.

Regional precipitation in March were below normal (1991-2020) in Marmara, Aegean, Mediterranean, near normal in Central Anatolia, above normal Black Sea, Eastern Anatolia and South Eastern Anatolia.

The number of rainy days in March throughout Turkey was below normal with 12.8 days (1991-2020 normal is 11.2 days). The number of rainy days occurred in the range of 20-25 days in Çanakkale, Balıkesir, Sakarya, Bartın, Karabük, Kastamonu, Sinop, Samsun, Amasya, Yozgat, Sivas, Kayseri, Tunceli, Elazığ, Diyarbakır, Bingöl, Muş, Bitlis and coastal region of east Black Sea.

There are 62 extreme events have been reported in March 2024 in TSMS's Kardelen Database. Percentage of extreme events recorded in March 2024 were heavy rain-flood (16%), hail (18%), storm-tornado (21%), snow (26%), landslide (5%), lightning (3%), frost (8%) and avalanche (5%).

2. Temperature

The mean temperature of Türkiye in March 2024 was 9.2°C. This value was 1.5°C above the 1991-2020's normal (7.7°C) (Fig.2.1).

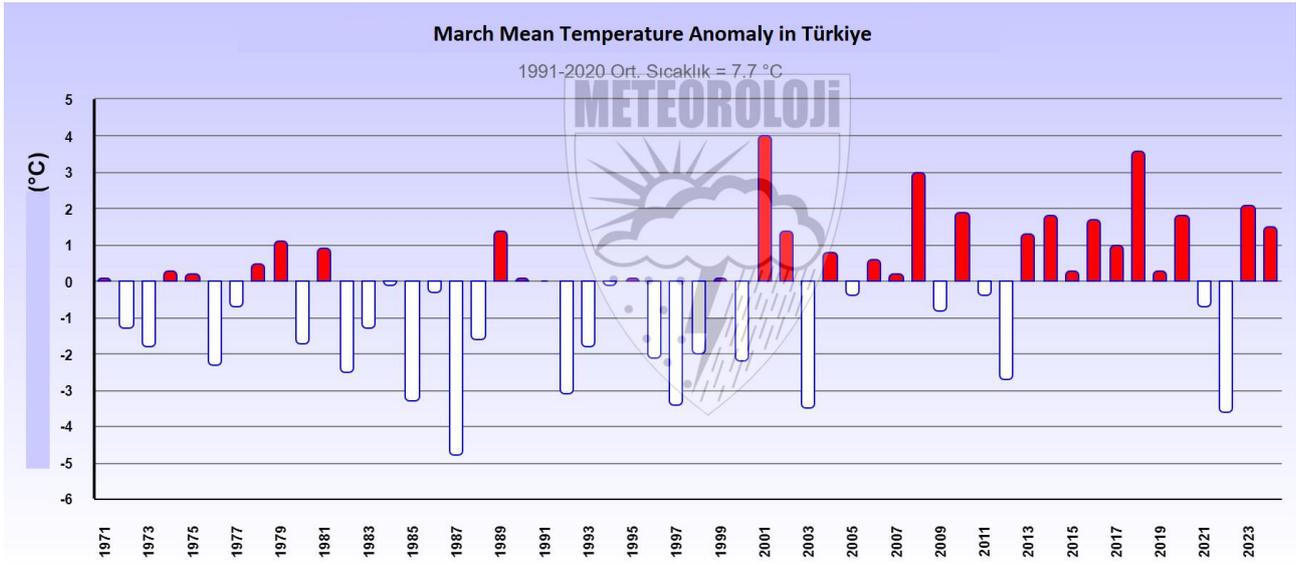
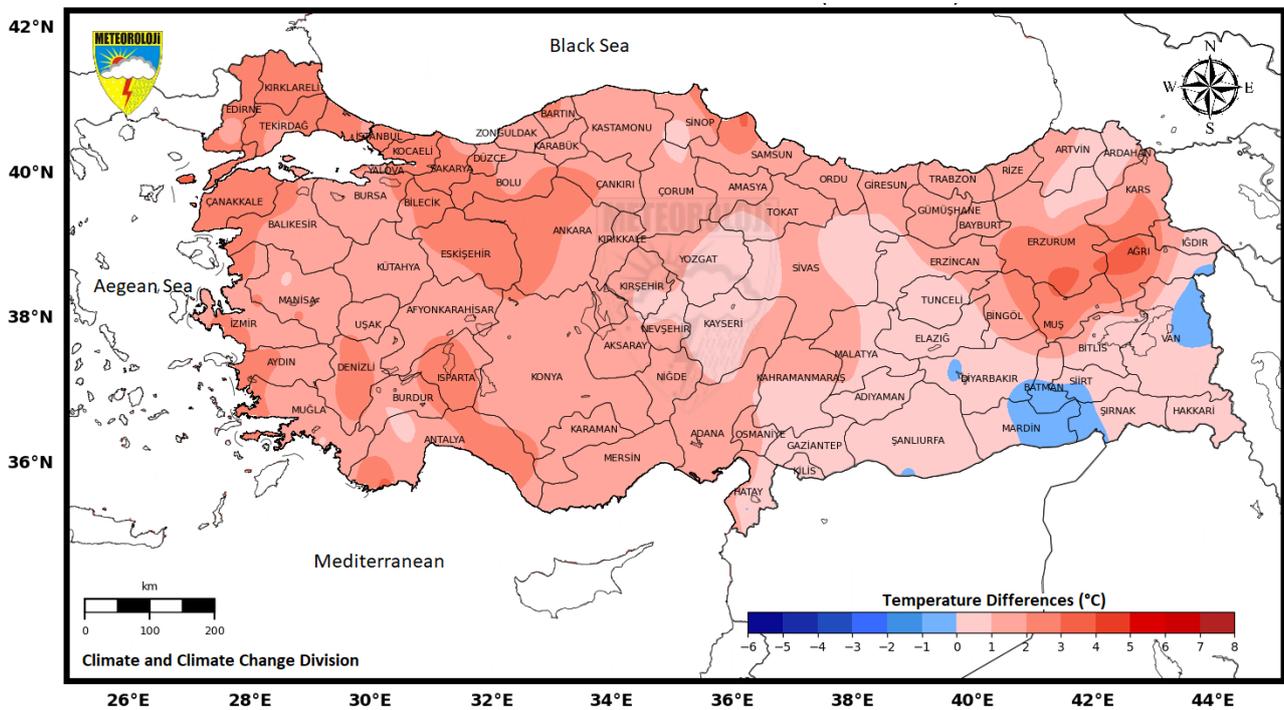


Figure 2.1 Monthly mean temperature anomalies in March (Url 1).

Mean temperatures in March 2024 were above normal in whole Türkiye, except some part of South Eastern Anatolia (Fig.2.2).



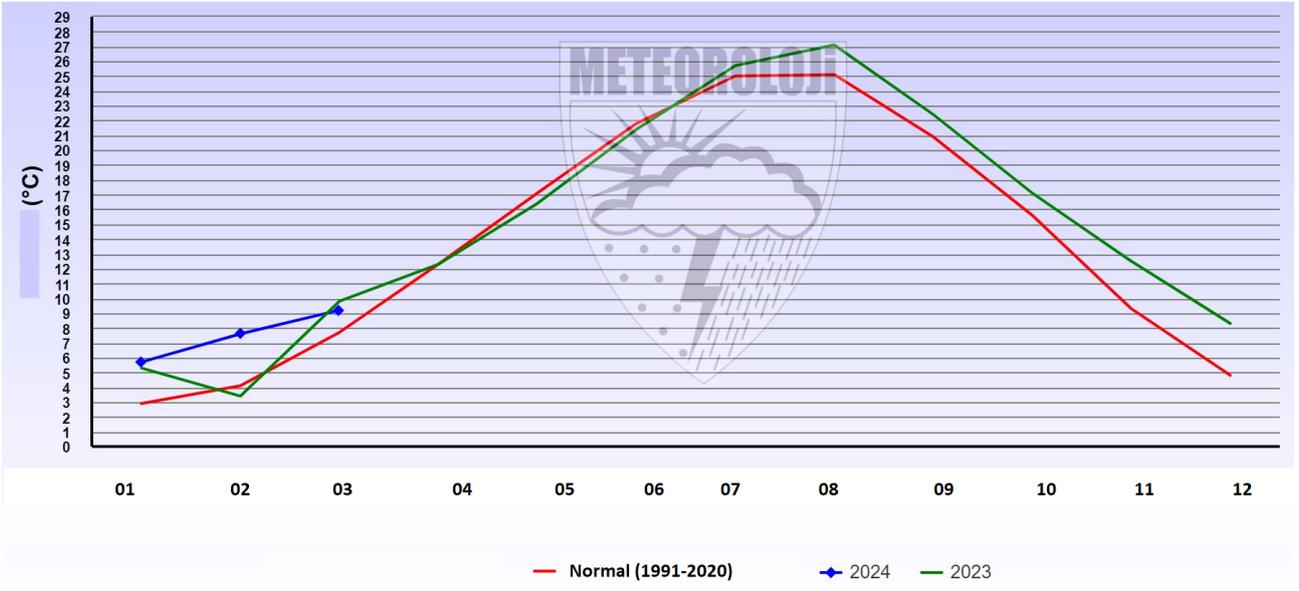


Figure 2. 3 The difference of the monthly mean temperature in 2024 from normal (1991-2020) (Url 1).

The monthly mean temperature of March 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).

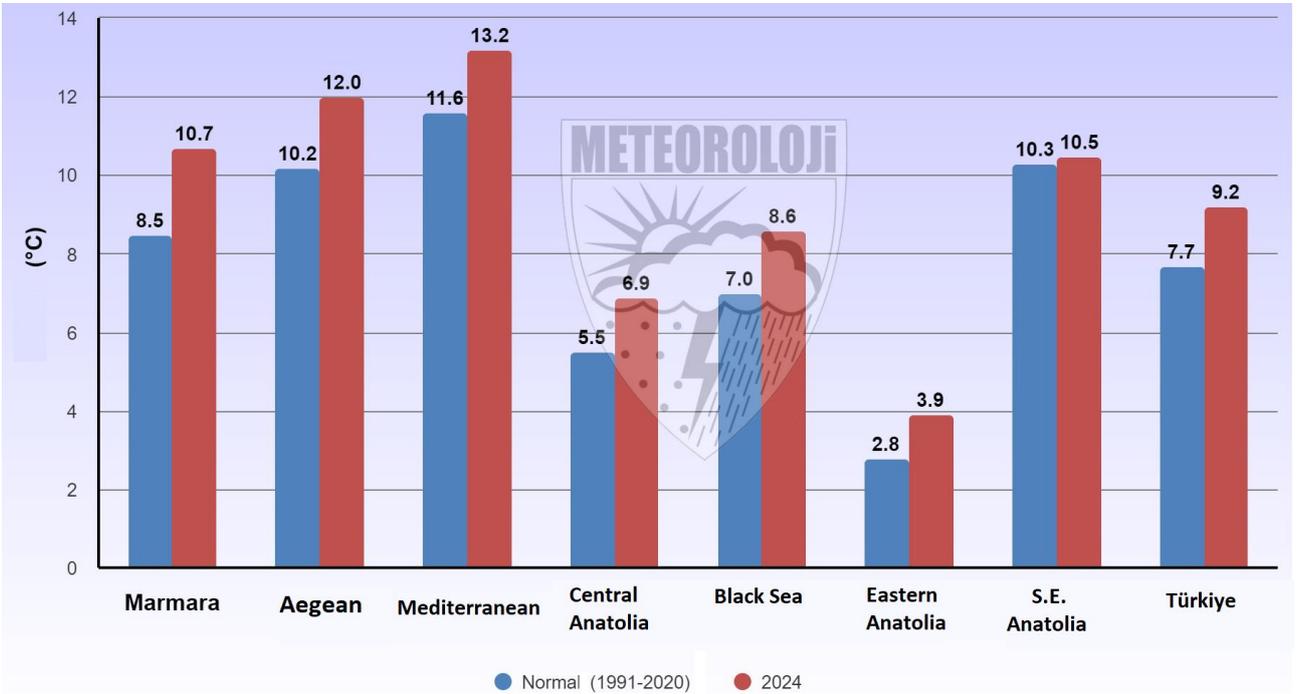


Figure 2. 4 Regional mean temperature differences in March 2024 (Url 1).

2.2. Extreme Temperature

The lowest temperature was observed in Özalp with -22.3°C and the highest temperature was observed in Adana with 31.9°C . There were 22 new extreme maximum temperature records

3. Precipitation

Türkiye's areal mean precipitation in March 2024 was 34.5 mm. This value is approximately 42% below the 1991-2020's normal (59.8 mm) (Fig. 3.1)

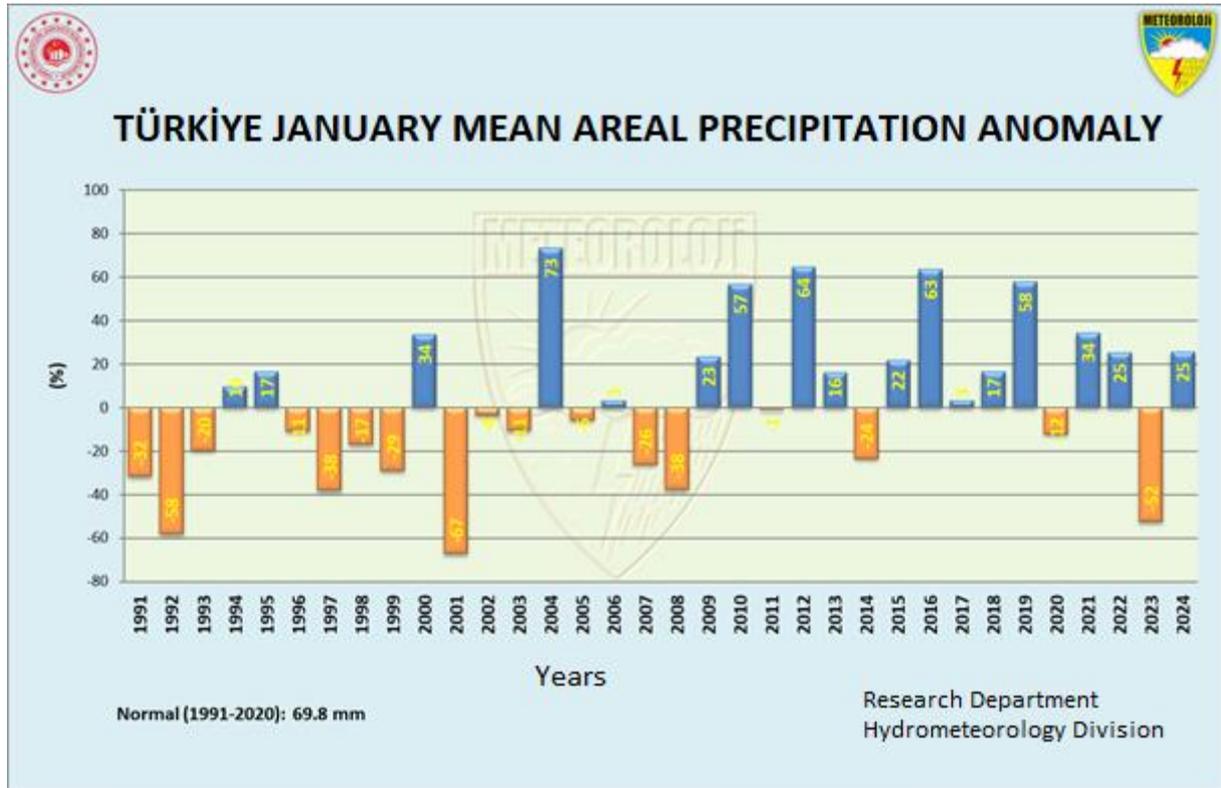


Figure 3. 1 Areal precipitation anomaly in March in Türkiye (Url 2).

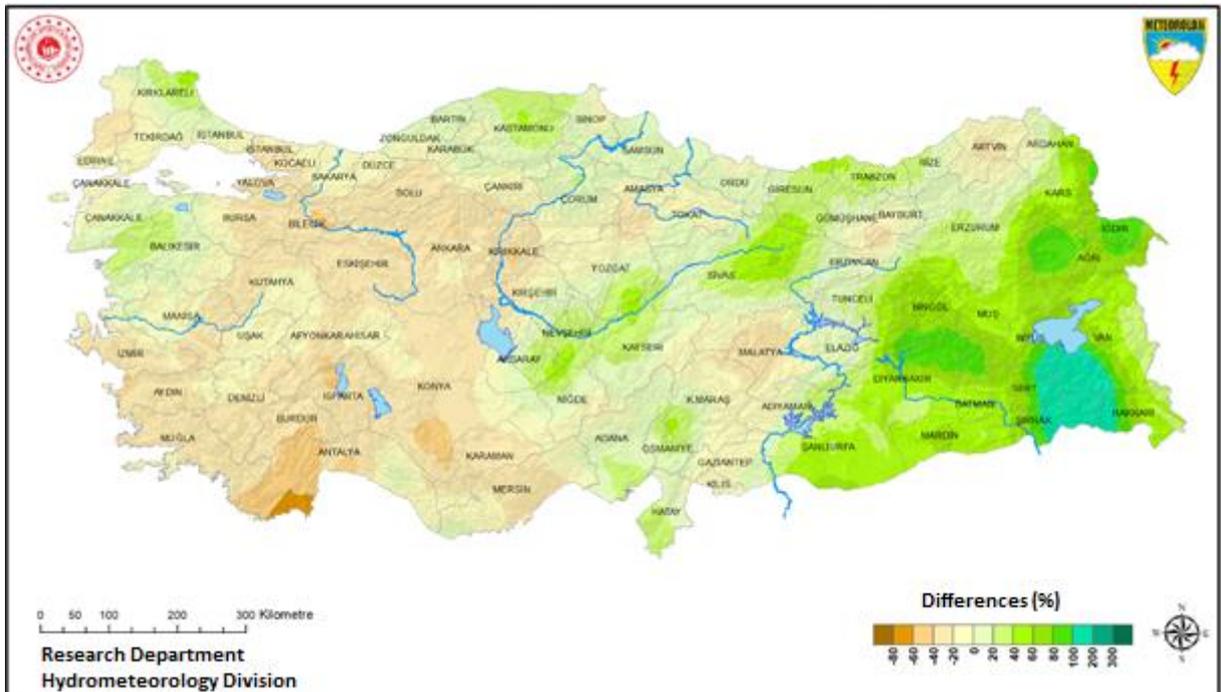


Figure 3. 2 Spatial distribution of mean precipitation anomalies in March 2024 (Url 2).

During the March, rainfall were increased in east and south of Eastern Anatolia, east of South Eastern Anatolia, in Hakkari, Şırnak, Siirt and Van. On the contrary an decreased of 40% compared to normal was recorded in Antalya, Konya, Bilecik (Fig. 3.2).

3.1. Regional Precipitation

Regional precipitation in March were below normal (1991-2020) in Marmara, Aegean, Mediterranean, near normal in Central Anatolia, above normal Black Sea, Eastern Anatolia and South Eastern Anatolia (Figure 3.3).

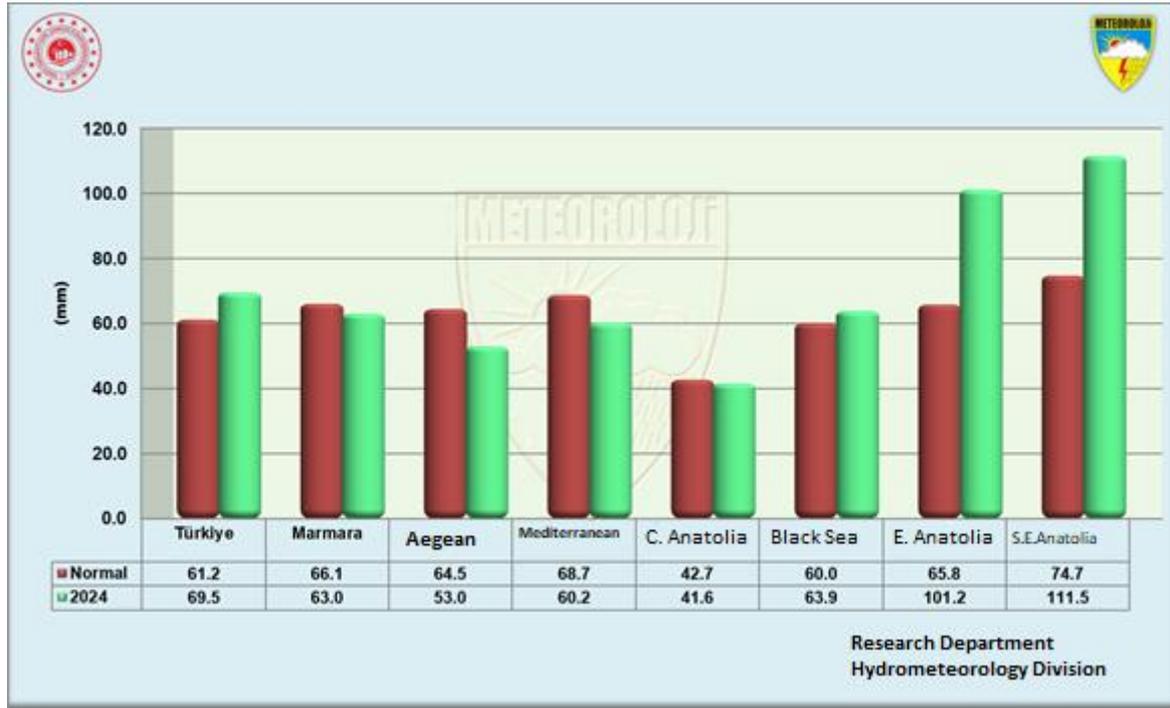


Figure 3. 3 Regional Precipitation Differences in March 2024 (Url 2).

3.2. Rainy Days

The number of rainy days in March throughout Turkey was below normal with 12.8 days (1991-2020 normal is 11.2 days). The number of rainy days occurred in the range of 20-25 days in Çanakkale, Balıkesir, Sakarya, Bartın, Karabük, Kastamonu, Sinop, Samsun, Amasya, Yozgat, Sivas, Kayseri, Tunceli, Elazığ, Diyarbakır, Bingöl, Muş, Bitlis and coastal region of east Black Sea (Fig. 3.4).

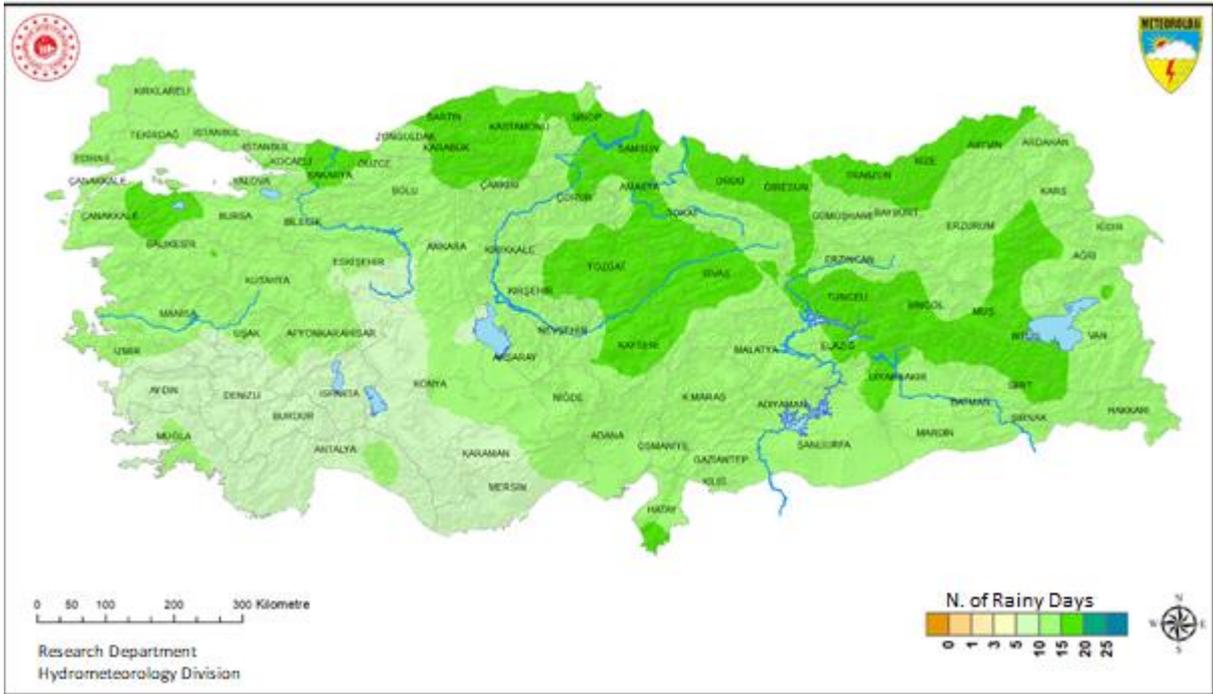


Figure 3. 4 Number of rainy days in March 2024 (Url 2).

3. Extreme Meteorological Events

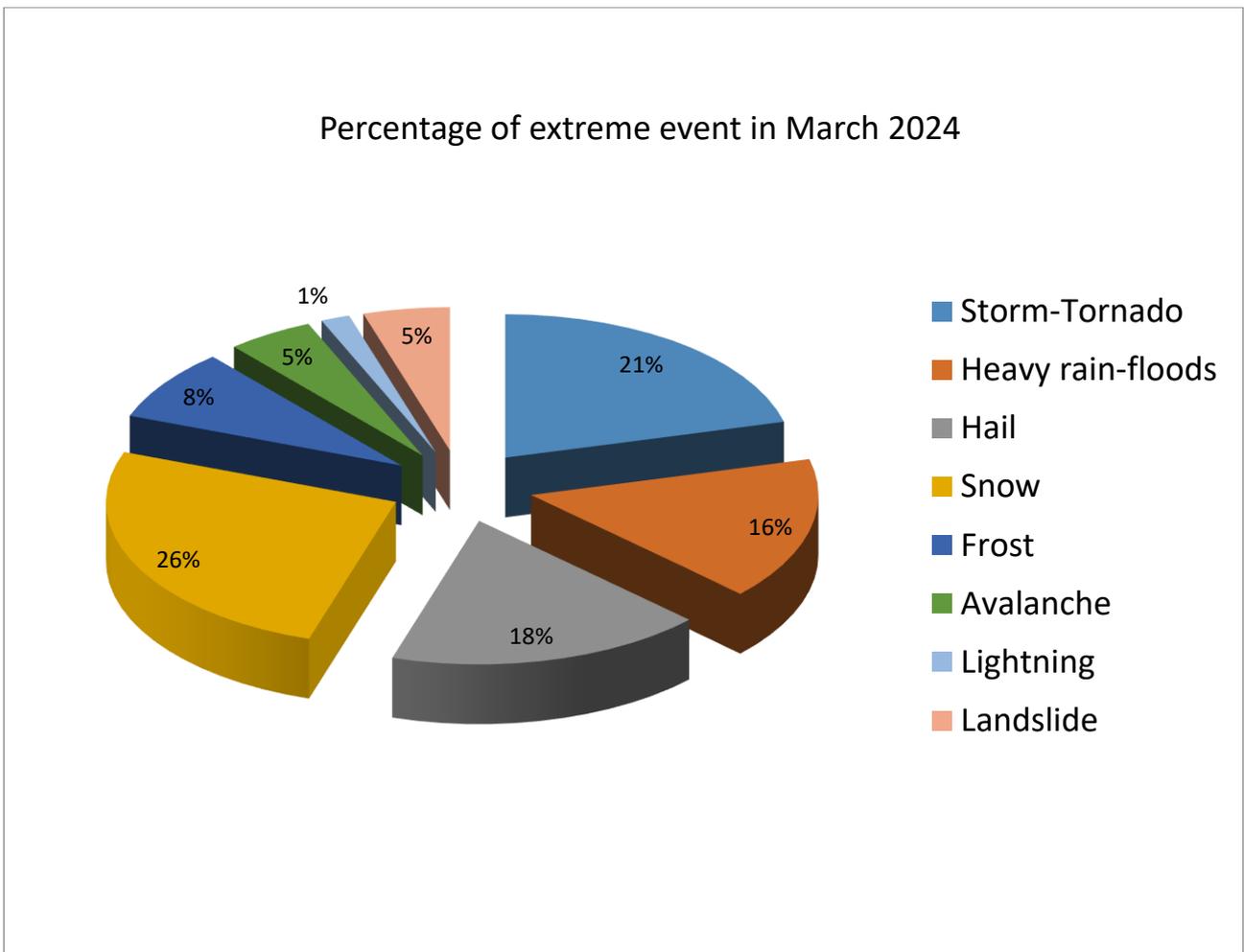


Figure 4.1. Percentage of extreme event in March 2024 (Url 3).

There are 62 extreme events have been reported in March 2024 in TSMS's Kardelen Database. Percentage of extreme events recorded in March 2024 were heavy rain-flood (16%), hail (18%), storm-tornado (21%), snow (26%), landslide (5%), lightning (3%), frost (%8) and avalanche (5%) (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
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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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