



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



State of the Climate in February 2024



Climate and Agricultural Meteorology Department
Research Department

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2024

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1. Introduction

The mean temperature of Türkiye in February 2024 was 7.6°C. This value was 3.5°C above the 1991-2020's normal (4.1°C).

Mean temperatures in February 2024 were above normal in whole Türkiye. This made it 2nd warmest February since 1971.

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

The lowest temperature was observed in Ardahan with -29.5°C and the highest temperature was observed in Karaisalı with 28.7°C. There were 3 new extreme maximum temperature records.

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

During the February, rainfall were increased in Antalya, Mersin, Tunceli, Elazığ, Diyarbakır, Şanlıurfa, Artvin and Ardahan. On the contrary an decreased of 80% compared to normal was recorded in Bursa, Balıkesir, Kütahya and Nevşehir.

In February, the highest precipitation was occurred in Elazığ with 91.7 mm and lowest recorded with 7.9 mm precipitation in Iğdır.

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

The number of rainy days in February throughout Turkey was below normal with 7.2 days (1991-2020 normal is 11.0 days). The number of rainy days occurred in the range of 10-15 days in İstanbul, Antalya, Samsun, coastal regions of Eastern Black Sea, south of Eastern Anatolia, Hatay and South Eastern Anatolia region.

There are 67 extreme events have been reported in February 2024 in TSMS's Kardelen Database. Percentage of extreme events recorded in February 2024 were heavy rain-flood (24%), hail (18%), storm-tornado (22%), snow (13%), landslide (3%), fog (3%), lightning (5%) and avalanche (12%).

2. Temperature

The mean temperature of Türkiye in February 2024 was 7.6°C. This value was 2.8°C above the 1991-2020's normal (4.1°C) (Fig.2.1).

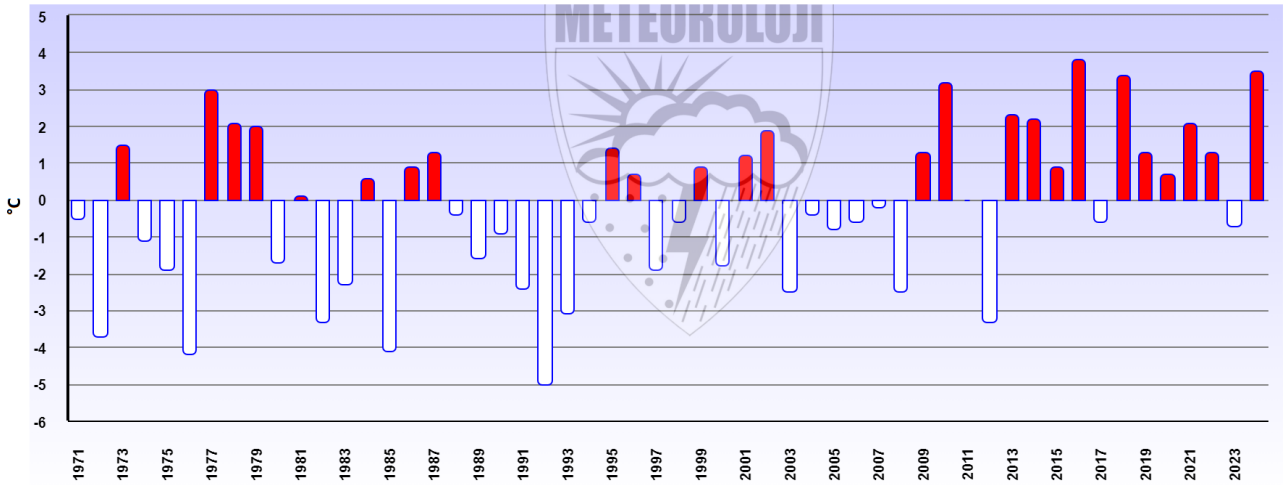


Figure 2.1 Monthly mean temperature anomalies in February (Url 1).

Mean temperatures in February 2024 were above normal in Türkiye. This made it 2nd warmest February since 1971 (Fig.2.2).

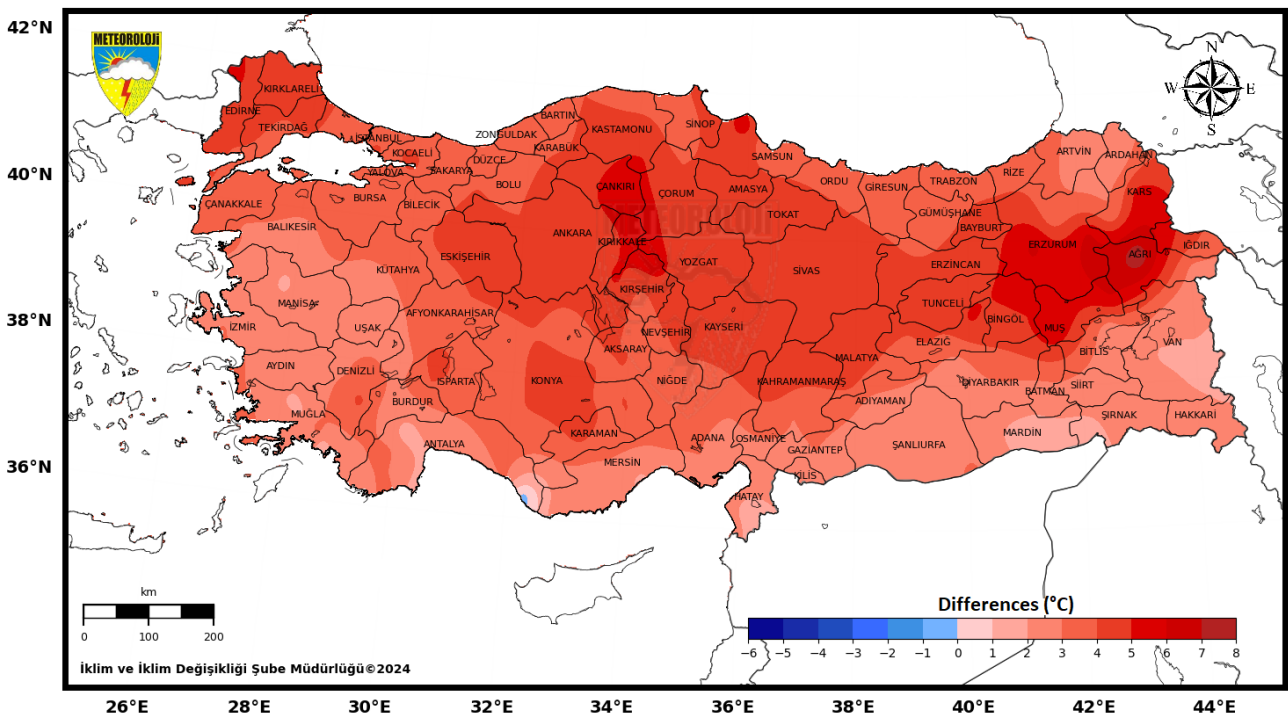


Figure 2.2. Spatial distribution of mean temperature anomaly in Türkiye in February 2024 (Url 1).

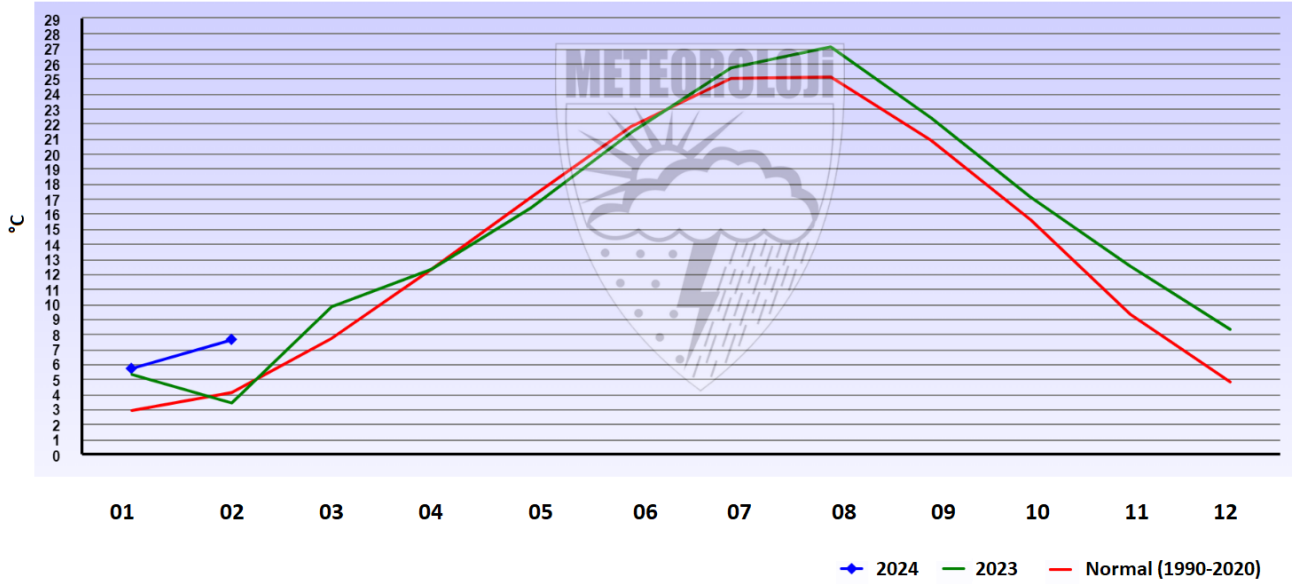


Figure 2. 3 The difference of the monthly mean temperature in 2024 from normal (1991-2020) (Url 1).

The monthly mean temperature of February 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).

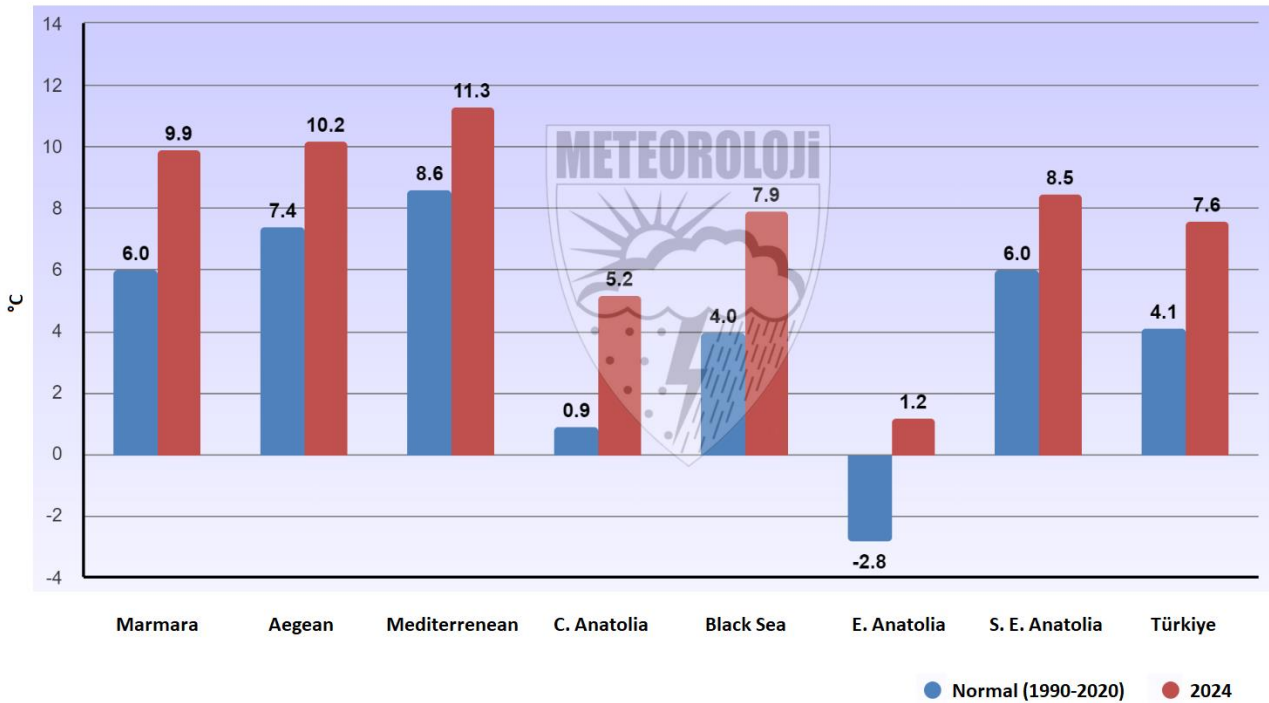


Figure 2. 4 Regional mean temperature differences in February 2024 (Url 1).

2.2. Extreme Temperature

The lowest temperature was observed in Ardahan with -29.5°C and the highest temperature was observed in Karaisalı with 28.7°C . There were 3 new extreme maximum temperature records.

3. Precipitation

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

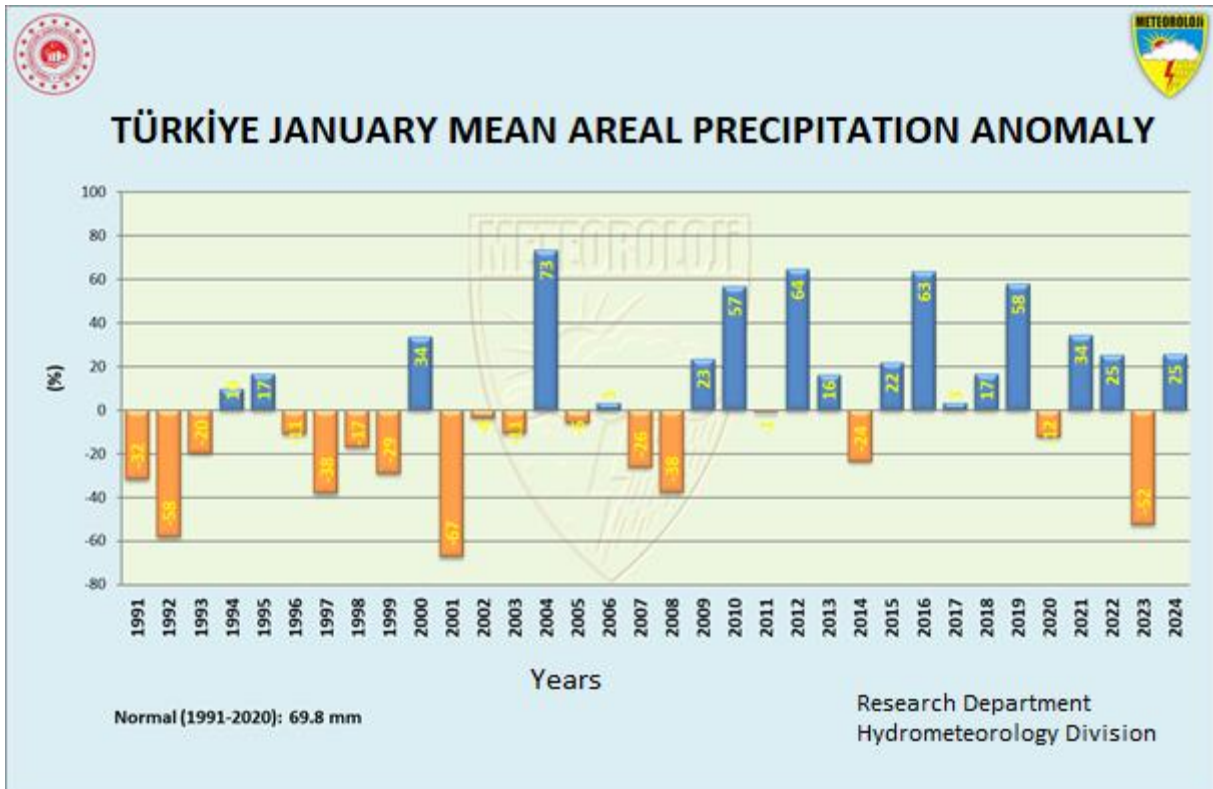


Figure 3. 1 Areal precipitation anomaly in February in Türkiye (Url 2).

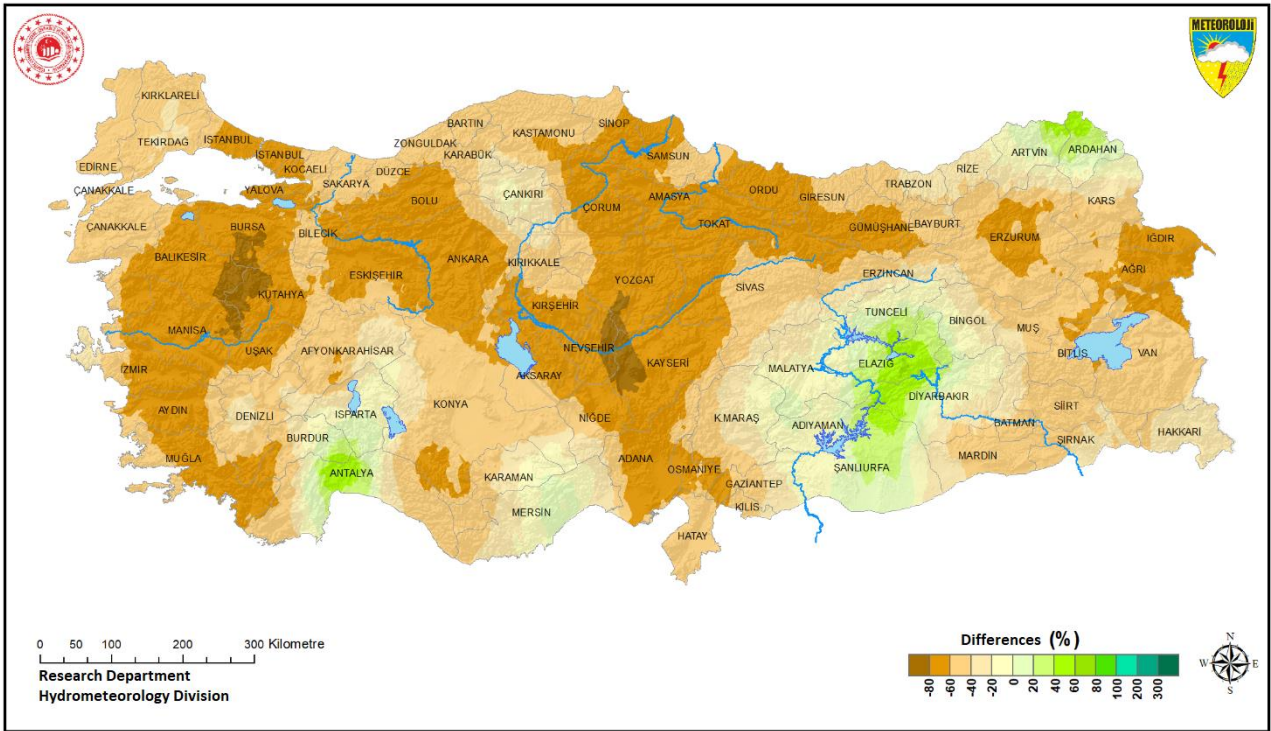


Figure 3. 2 Spatial distribution of mean precipitation anomalies in February 2024 (Url 2).

During the February, rainfall were increased in Antalya, Mersin, Tunceli, Elazığ, Diyarbakır, Şanlıurfa, Artvin and Ardahan. On the contrary an decreased of 80% compared to normal was recorded in Bursa, Balıkesir, Kütahya and Nevşehir (Fig. 3.2).

3.1. Regional Precipitation

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

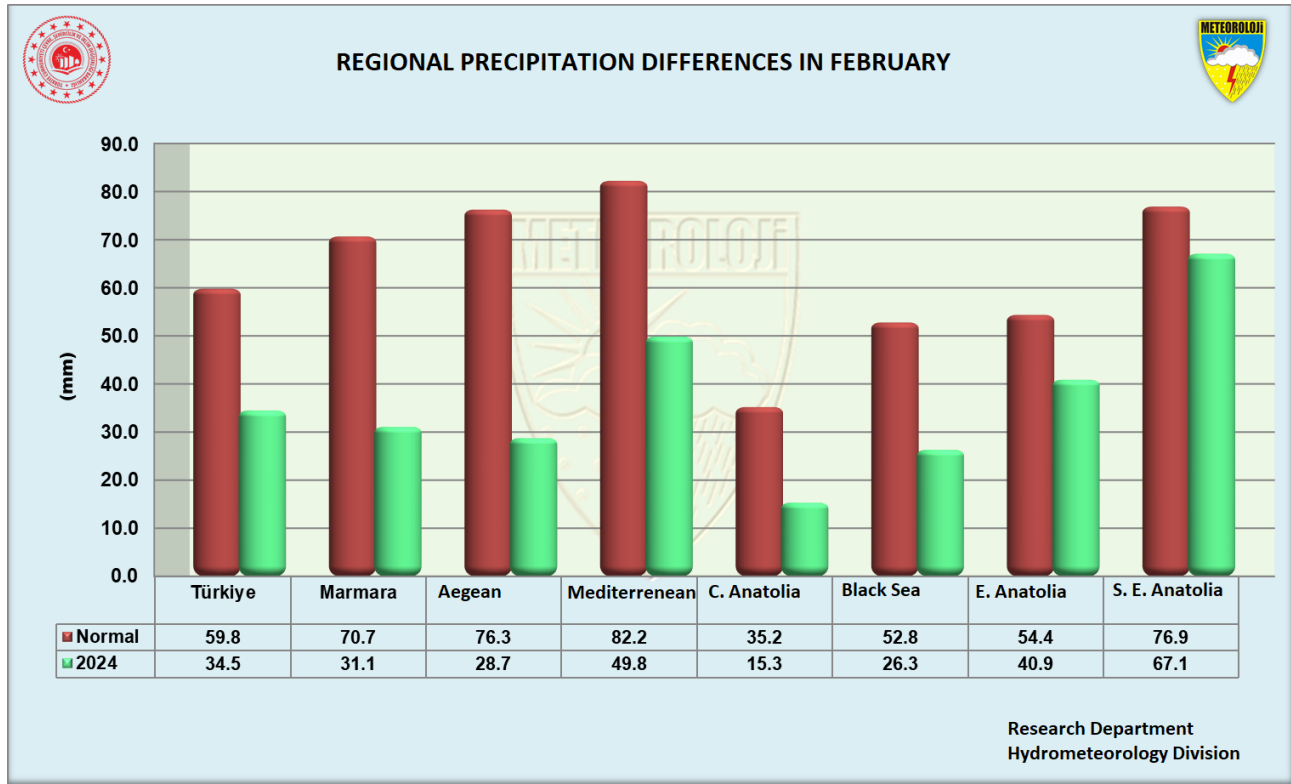


Figure 3. 3 Regional Precipitation Differences in February 2024 (Url 2).

3.2. Rainy Days

The number of rainy days in February throughout Turkey was below normal with 7.2 days (1991-2020 normal is 11.0 days). The number of rainy days occurred in the range of 10-15 days in İstanbul, Antalya, Samsun, coastal regions of Eastern Black Sea, south of Eastern Anatolia, Hatay and South Eastern Anatolia region (Fig. 3.4).

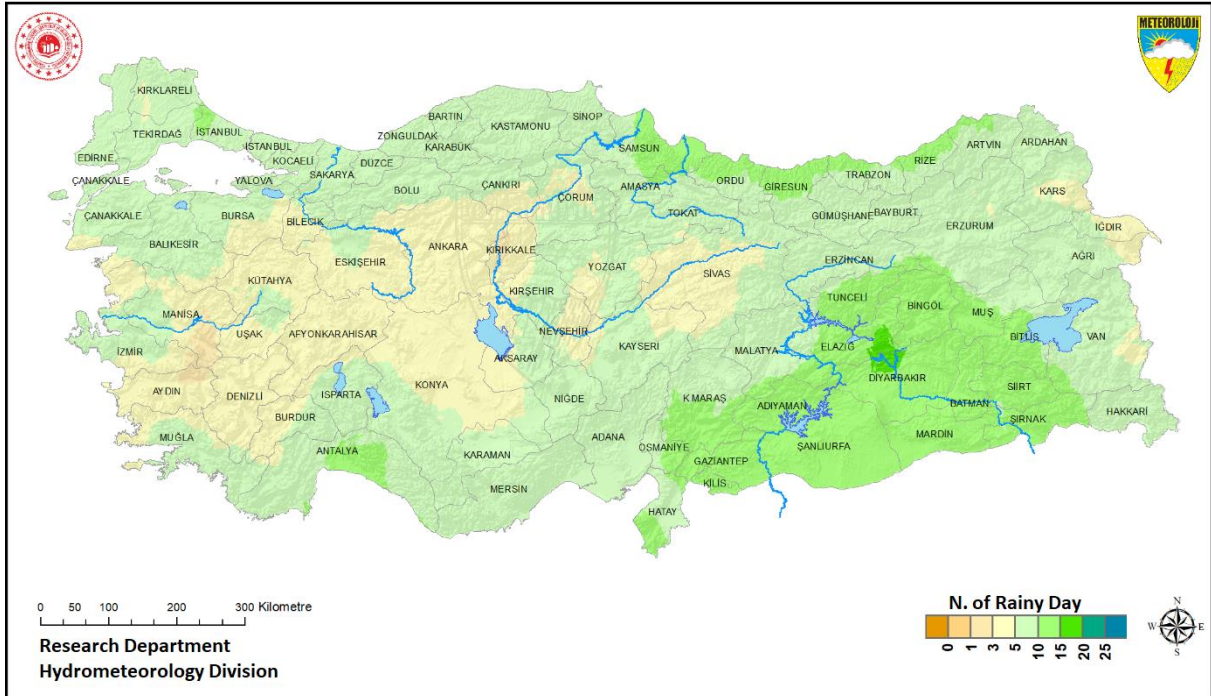


Figure 3. 4 Number of rainy days in February 2024 (Url 2).

3. Extreme Meteorological Events

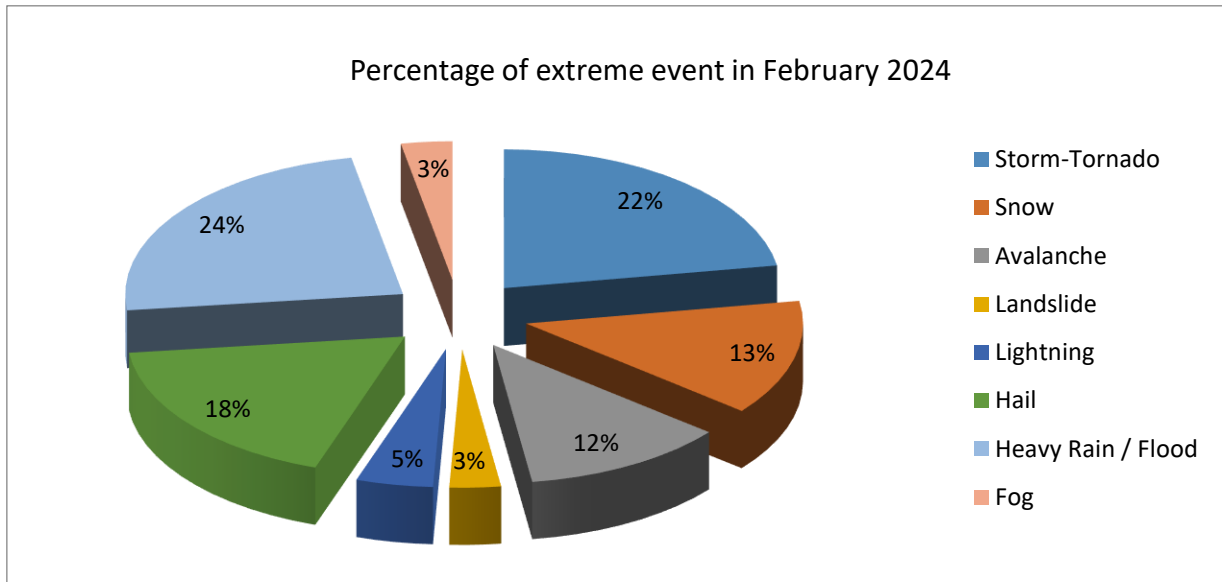


Figure 4.1. Percentage of extreme event in February 2024 (Url 3).

There are 67 extreme events have been reported in February 2024 in TSMS's Kardelen Database. Percentage of extreme events recorded in February 2024 were heavy rain-flood (24%), hail (18%), storm-tornado (22%), snow (13%), landslide (3%), fog (3%), lightning (5%) and avalanche (12%) (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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