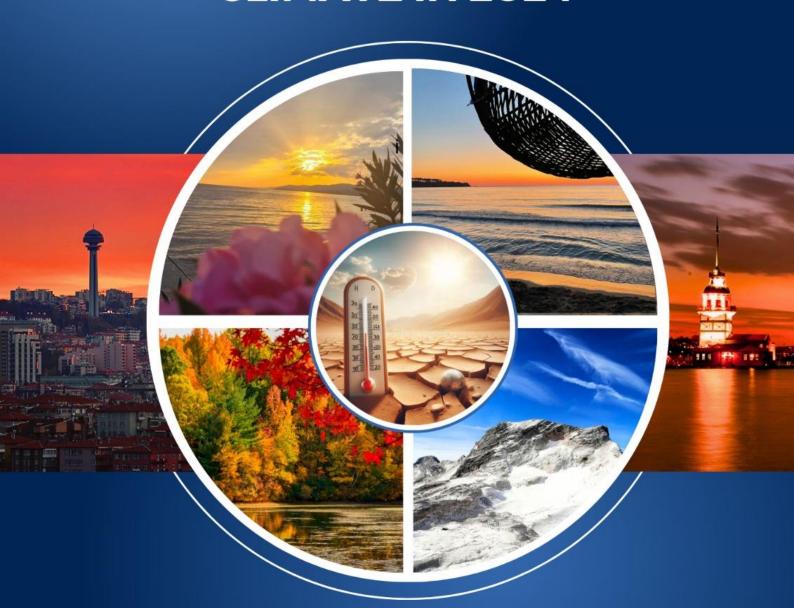
# REPUBLIC OF TÜRKİYE

# MINISTRY OF ENVIRONMENT, URBANIZATIN AND CLIMATE CHANGE

**TURKISH STATE METEOROLOGICAL SERVICE** 

# THE STATE OF THE TÜRKİYE'S CLIMATE IN 2024



# REPUBLIC OF TÜRKİYE MINISTRY OF ENVIRONMENT, URBANIZATION AND CLIMATE CHANGE TURKISH STATE METEOROLOGICAL SERVICE

# The State of the Türkiye's Climate in 2024

Climate and Agricultural Meteorology Department Research Department

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#### 1. Summary

Climate refers to the total and average of weather events that occur every day in a place a long period. In the study, the average temperatures of 2024 were compared with the normal (1991-2020) by taking 220 stations used in climate assessment, which had 30 years of complete data and were distributed homogeneously in Turkey.

In 2024, Türkiye's mean temperature was 15.6°C, this is 1.7°C above the 1991-2020 mean value (13.9°C) which **broke the record of the last 54 years**. The warmest year was 2024 with 15.6°C. This value exceeded the previous record of 15.5°C in 2010 by 0.1 °C.

Mean temperature records were broken in January, April, June and July in 2024.

The winter and summer seasons in 2024 broke the record of the last 54 years.

There are positive temperature anomalies in Türkiye's mean temperatures since 2007 (except in 2011).

366-daily mean temperature differences in 2024, 75 days were negative, 288 days were positive and 3 days equal the normal.

In 2024, the mean temperatures in Türkiye were above the long-term mean in 220 center.

In 2024, monthly mean temperatures were above normal except in May, November.

In 2024, the lowest temperature was -31.3 °C in Ardahan in January and the highest temperature was 47.8 °C in Ceylanpınar in June.

In 2024, Türkiye's mean areal precipitation was recorded at 537.2 mm. The annual average areal precipitation for the country, based on the 1991–2020 period, is 573.4 mm. This represents a 6.3% decrease compared to the long-term average. Precipitation increased by between 20 and 40% compared to the long-term average in Giresun, Trabzon, Ardahan, and the southern areas of Lake Van.

Rize recorded the highest annual precipitation among the provinces, with 1869.8 mm. The most significant increase compared to the long-term average occurred in Trabzon, with a 27.9% rise. Conversely, Kırıkkale recorded the lowest annual precipitation at 316.1 mm, while Edirne experienced the most substantial decrease relative to the long-term average, with a decline of 35.0%.

Monthly precipitation was below normal in February, April, June, August, October, November, and December. January recorded the highest rainfall at 87.5 mm, while June was the driest month with only 11.9 mm. Seasonal precipitation was below normal in winter, summer and autumn while near normal in spring.

The number of extreme events reached 1257 in 2024 according to TSMS's Database. In 2024, the most hazardous extreme events were heavy rainfall and floods with 35%, storm with 20%, hail with 18%, heavy snow with 9%, lightning strikes with 8%, landslides with 3%, tornadoes with 2% and frost with 2%. Extreme events such as avalanches, wild fires, fog and sandstorms accounted for 1% or less of the total.

# 2. Temperature

In 2024, Türkiye's mean temperature was 15.6°C, this is 1.7°C above the 1991-2020 mean value (13.9°C) which **broke the record of the last 54 years**. (Table 2.1, Figure 2.1).

**Table 2.1**. Summary of mean temperatures in Türkiye by climatic perspective

		*				2024 - Normal Period		Difference between
	2024	Normal	2023	Warmest	2nd Warmest	Difference	2024 - 2023 Difference	Warmest and 2nd Warmest
January	5.7	2.9	5.3	2024	2003	2.8	0.4	0.1
February	7.6	4.1	3.4	2016	2024	3.5	4.2	0.3
March	9.2	7.7	9.8	2001	2018	1.5	-0.6	0.4
April	16.6	12.3	12.3	2024	1989	4.3	4.3	0.8
May	16.9	17.1	16.4	2021	2007	-0.2	0.5	0.3
June	25.4	21.8	21.4	2024	2019	3.6	4.0	2.0
July	26.7	25.0	25.7	2024	2000	1.7	1.0	0.3
August	26.4	25.1	27.1	2010	2023	1.3	-0.7	0.1
September	22.2	20.9	22.4	2020	2015	1.3	-0.2	0.6
October	15.8	15.6	17.1	2020	1974	0.2	-1.3	0.8
November	9.2	9.3	12.5	2010	2023	-0.1	-3.3	0.0
December	6.1	4.8	8.3	2023	2022	1.3	-2.2	0.3
Winter	7.2	3.9	5.5	2024	2010	3.3	.7	0.5
Spring	14.2	12.4	12.8	2018	2024	1.8	1.4	0.7
Summer	26.1	24.0	24.7	2024	2010	2,1	1.4	1.0
Autumn	15.7	15.3	17.4	2020	2023	0.4	-1.7	0.0
Annual	15.6	13.9	15.1	2024	2010	1.7	0.5	0.1
		*Note:	Temperatur	re assessment conducted	d across 220 stations. The	normal period is defined	as 1991-2020.	

**The warmest year was 2024 with 15.6** °C. This value exceeded the previous record of 15.5°C in 2010 by 0.1°C (Table 2.1).

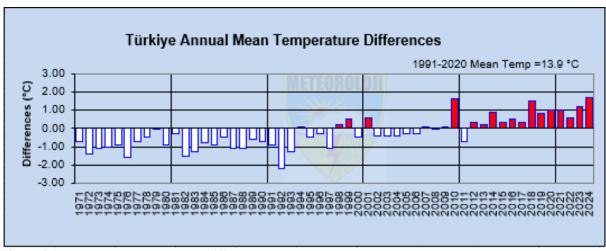


Figure 2.1. Annual mean temperature differences (URL 1).

There are positive temperature anomalies in Türkiye's mean temperatures since 2007 (except in 2011) (Fig. 2.1).

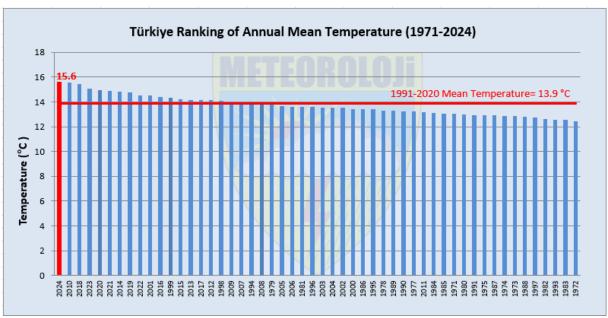


Figure 2.2. Ranking of annual mean temperature (URL 1).

# The year 2024 was the warmest year with 15.6 °C (Fig. 2.2).

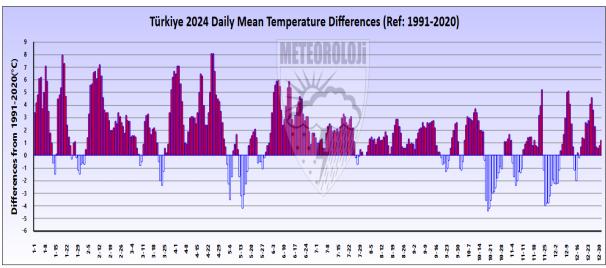


Figure 2.3. Daily mean temperature differences

366-daily mean temperature differences in 2024, 75 days were negative, 288 days were positive and 3 days equal the normal. Daily difference values are between -4.4  $^{\circ}$ C and 8.1  $^{\circ}$ C. The average of positive differences was 2.6  $^{\circ}$ C, and the average of negative differences was -1.6  $^{\circ}$ C (Figure 2.3).

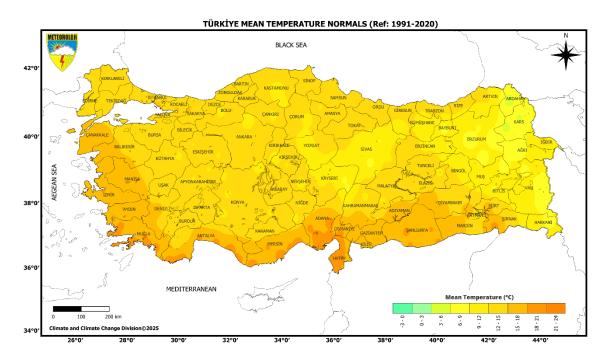
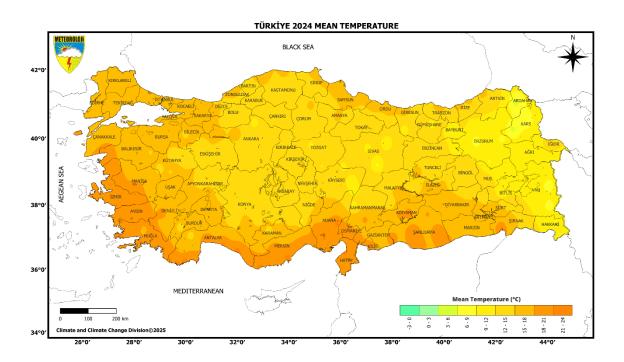


Figure 2.4. Türkiye's normal (1991-2020) temperature map



**Figure 2.5.** Türkiye's mean temperature map for 2024

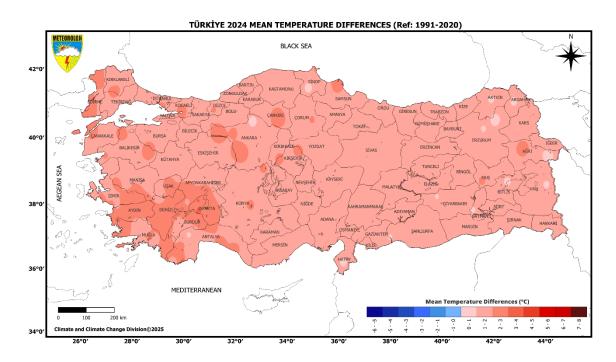


Figure 2.6. Türkiye's 2024 mean temperature differences from 1991-2020 normal

In 2024, the mean temperatures in Türkiye were above the normal (1991-2020) in 220 center (Fig 2.6).

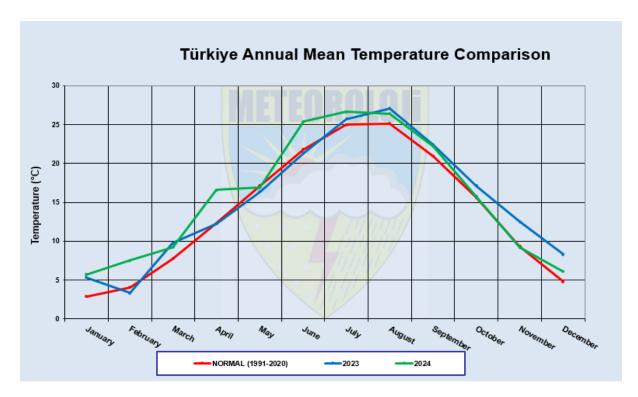


Figure 2.7. Comparison of monthly mean temperatures between normal and last year (URL 1).

In 2024, monthly mean temperatures were above normal except in May, November (Fig. 2.7).

# 2.1. Seasonal Temperature Assessment

# 2.1.1. Winter Temperature

The winter mean temperature of the years 2023-2024 was 7.2 °C, which was 3.3 °C above the seasonal normal (3.9 °C) (Fig. 2.8).

**December 2023 and January 2024 were the warmest** December and January months of the last 54 years. February 2024 was the second warmest February among the February months of the last 54 years.

The winter season of 2024 was the warmest season of the past 54 years.

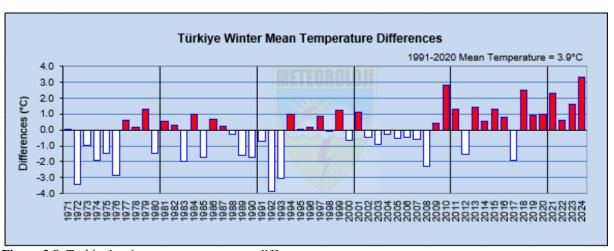


Figure 2.8. Türkiye's winter mean temperature differences

# 2.1.2. Spring Temperature

The spring mean temperature in 2024 was 14.2 °C, which was 1.8 °C above the seasonal normal (12.4 °C) (Figure 2.9).

April 2024 was the warmest April among the April months of the last 54 years.

The spring season of 2024 was the second warmest season of the past 54 years.

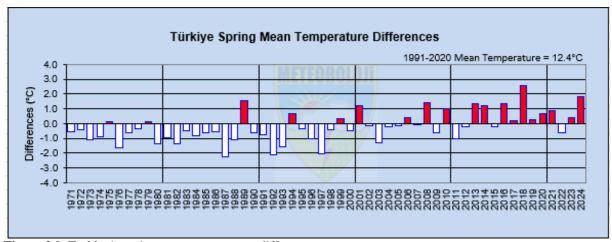


Figure 2.9. Türkiye's spring mean temperature differences

# 2.1.3. Summer Temperature

The summer mean temperature of 2024 was 26.1 °C, which was 2.1 °C above the seasonal normal (24 °C) (Fig. 2.10).

**June and July 2024 was the warmest** June and July among the April and July months of the last 54 years.

The summer season of 2024 was the warmest season of the past 54 years

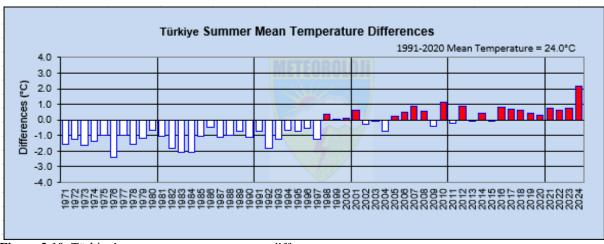


Figure 2.10. Türkiye's summer mean temperature differences

# 2.1.4. Autumn temperature

The mean temperature of the autumn season in 2024 was 15.7 °C, which was 0.4 °C above the seasonal normal (15.3 °C) (Fig. 2.11).

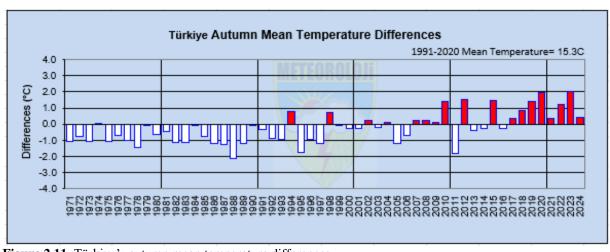


Figure 2.11. Türkiye's autumn mean temperature differences

# 2.2. Regional Temperature Assessment

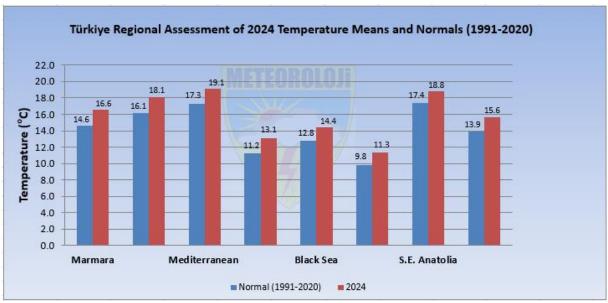


Figure 2.12. Comparisons of the 2024 mean temperatures with the normal temperatures according to the regions (URL 1).

The mean temperatures of 2024 were above their seasonal normal (1991-2020) in all regions (Fig. 2.12).

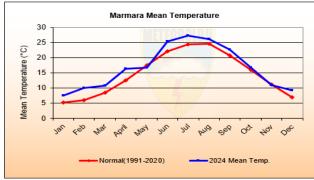


Figure 2.13. Mean Temperature in Marmara

# 2.2.1. Marmara Region

In 2024, the monthly mean temperatures of the region were below normal in May, November and above normal in other months (Fig. 2.13).

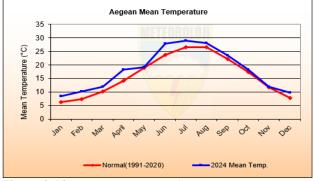


Figure 2.14. Mean Temperature in Aegean

# 2.2.2. Aegean Region

In 2024, the mean monthly temperatures of the region were above normal (Fig. 2.14).

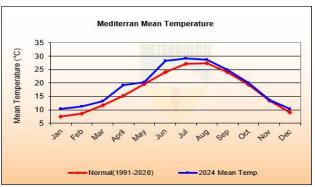


Figure 2.15. Mean Temperature in the Mediterranean

2.2.3 Mediterranean Region

In 2024, the mean monthly temperatures of the region were above normal (Fig. 2.15).

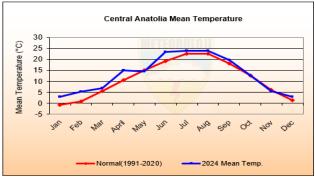


Figure 2.16. Mean Temperature in Central Anatolia

# Black Sea Mean Temperature 30 Mean Temperature (°C) 25 20 15 10

Figure 2.17. Mean Temperature in the Black Sea

# 2.2.4. Central Anatolia Region

In 2024, the monthly mean temperatures of the region were below normal in May, October, November and above normal in other months. (Fig. 2.16).

# 2.2.5. Black Sea Region

In 2024, the monthly mean temperatures of the region were below normal in May, October, November and above normal in other months (Fig. 2.17).

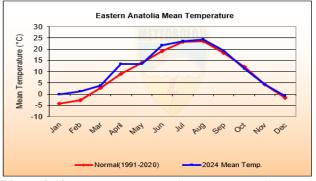


Figure 2.18. Mean Temperature in Eastern Anatolia

# 2.2.6. Eastern Anatolia Region

In 2024, the mean monthly temperatures of the region were below normal in May, October, November and above normal in other months (Fig. 2.18).

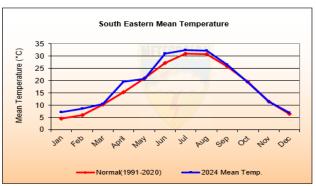


Figure 2.19. Mean Temperature in Southeastern Anatolia

# 2.2.7. Southeastern Anatolia Region

In 2024, the mean monthly temperatures of the region were below normal in May, October, November and above normal in other months (Fig. 2.19).

# 2.3. Extreme Temperature

In 2024, the lowest temperature was -31.3 °C in Ardahan in January, and the highest temperature was 47.8 °C in Ceylanpınar in June (Fig. 2.20).

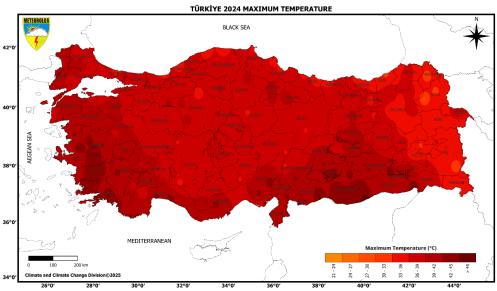


Figure 2.20. Maximum temperature map of 2024

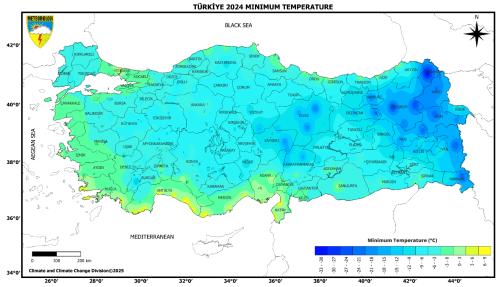


Figure 2.21. Minimum temperature map of 2024

In 2024, 137 centers broke their own records for the highest temperatures for the dates given in the Table 2.2.

**Table 2.2**. The highest temperatures recorded in 2024

		peratures recorded in 2024	2024 Year	Long Term
Day	Month	Station	Max. Temp. (°C)	Max. Temp. (°C)
19	JANUARY	GÖKÇEADA	20.7	20.1
19	JANUARY	LÜLEBURGAZ	22.8	21.7
5	JANUARY	ÇEŞME	21.1	20.9
19	JANUARY	AYDIN	23.8	23.2
21	JANUARY	MARMARİS	22.6	22.5
5	JANUARY	SEFERİHİSAR	21.2	21
5	JANUARY	MUT	20.8	20.6
5	JANUARY	ERDEMLİ	25.6	24.6
22	JANUARY	KALE-DEMRE	23.4	22.4
7	JANUARY	AKÇAKOCA	29.3	26.4
17	JANUARY	KIZILCAHAMAM	19.9	17.0
6	FEBRUARY	EDİRNE	24.5	23.3
25	FEBRUARY	FLORYA	22.5	21.0
14	FEBRUARY	KARAİSALI	28.7	27.1
30	MARCH	GÖKÇEADA	24.6	24.2
30	MARCH	UZUNKÖPRÜ	25.9	25.6
30	MARCH	LÜLEBURGAZ	27.7	27.0
31	MARCH	GEYVE	31.0	30.3
31	MARCH	GÖNEN/BALIKESİR	30.2	30.0
31	MARCH	ÇEŞME	26.1	25.2
30	MARCH	TAVŞANLI	28.3	27.4
31	MARCH	SEFERİHİSAR	27.8	27.3
31	MARCH	GÖKSUN	24.0	23.0
30	MARCH	KÖYCEĞİZ	29.0	28.9
30	MARCH	MANAVGAT	29.7	27.7
30	MARCH	YUMURTALIK	29.8	29.2
31	MARCH	KANGAL	22.7	22.5
31	MARCH	PINARBAŞI/KAYSERİ	23.8	22.9
31	MARCH	GÜMÜŞHANE	24.2	24.0
31	MARCH	KIZILCAHAMAM	26.1	24.4
31	MARCH	NALLIHAN	27.8	27.6
31	MARCH	BEYPAZARI	27.6	26.2
31	MARCH	BİNGÖL	22.9	22.3
31	MARCH	ARAPGİR	24.0	23.1
31	MARCH	SARIZ	23.3	21.8
31	MARCH	VİRANŞEHİR	27.3	26.4
24	APRİL	FETHİYE	35.8	35.7
27	APRİL	ISLAHIYE	34.5	34.4
25	APRİL	GAZİPAŞA	32.3	32.2
26	APRİL	ÇANKIRI	31.9	31.0
25	APRİL	SİVAS	29.5	29.0

Day	Month	Station	2024 Year Max. Temp. (°C)	Long Term Max. Temp. (°C)
24	APRİL	KAYSERİ	31.7	31.2
24	APRİL	KONYA	31.0	30.9
24	APRİL	EREĞLİ	32.7	32.4
25	APRİL	ZARA	28.3	27.8
24	APRİL	ÇİÇEKDAĞI	31.5	31.3
25	APRİL	KANGAL	26.4	26.0
24	APRİL	ÇUMRA	32.1	31.5
24	APRİL	ÇORUM	30.6	30.4
24	APRİL	TOKAT	33.8	33.5
25	APRİL	GÜMÜŞHANE	30.7	29.0
28	APRİL	BAYBURT	27.1	25.3
17	APRİL	ÜNYE	35.3	34.8
26	APRİL	OSMANCIK	33.0	32.8
28	APRİL	İSPİR	30.5	28.8
29	APRİL	OLTU	30.1	30.0
29	APRİL	ERZİNCAN	30.3	30.0
29	APRİL	KARS	26.6	25.0
29	APRİL	AĞRI	27.6	27.2
29	APRİL	BİNGÖL	30.5	30.3
28	APRİL	HAKKARİ	25.2	25.0
29	APRİL	SARIKAMIŞ	23.0	22.0
30	APRİL	TERCAN	28.5	27.3
29	APRİL	PALU	31.8	31.4
29	APRİL	ŞIRNAK	29.8	29.0
28	APRİL	CEYLANPINAR	38.9	37.5
24	JUNE	KÜTAHYA	37.5	36.2
13	JUNE	MANİSA	43.4	42.4
24	JUNE	UŞAK	40.0	36.6
24	JUNE	AFYONKARAHİSAR	37.3	35.8
13	JUNE	İZMİR	41.4	41.3
12	JUNE	AYDIN	44.6	44.4
12	JUNE	MUĞLA	41.2	40.8
12	JUNE	SİMAV	37.4	37.3
24	JUNE	GEDİZ	41.4	39.5
14	JUNE	EMİRDAĞ	37.2	37
12	JUNE	YATAĞAN	43.6	42.8
24	JUNE	BURDUR	40.9	38.7
24	JUNE	ISPARTA	40	36.2
25	JUNE	BEYŞEHİR	35.9	35.1
20	JUNE	KAHRAMANMARAŞ	42.6	42
6	JUNE	ALANYA	39.4	38.2
7	JUNE	ANAMUR	41.5	41

Day	Month	Station	2024 Year Max. Temp. (°C)	Long Term Max. Temp. (°C)
7	JUNE	SİLİFKE	42.3	41.3
7	JUNE	ADANA	43	42.8
5	JUNE	KAŞ	42.5	40.6
24	JUNE	SENİRKENT	39.6	37.6
24	JUNE	DİNAR	38.8	38.1
20	JUNE	GÖKSUN	35.1	34.4
24	JUNE	EĞİRDİR	38.2	36
12	JUNE	ACIPAYAM	39.2	38.2
24	JUNE	TEFENNİ	38.4	36.5
24	JUNE	ELMALI	38.7	37.4
13	JUNE	MUT	43.6	42.1
4	JUNE	DÖRTYOL	42.2	41.6
5	JUNE	KALE-DEMRE	42.6	42.4
7	JUNE	GAZİPAŞA	40.2	39.2
4	JUNE	SAMANDAĞ	40.5	39.8
24	JUNE	ESKİŞEHİR	37.2	36.6
25	JUNE	AKŞEHİR	37.3	36.2
25	JUNE	KONYA	37	36.7
25	JUNE	EREĞLİ	37.4	36.4
25	JUNE	NİĞDE	35.7	35
14	JUNE	POLATLI	39.3	37.4
25	JUNE	KULU	37.8	37
24	JUNE	KANGAL	33.2	33
24	JUNE	ILGIN	36.6	35.9
25	JUNE	ÇUMRA	37.8	37.3
24	JUNE	SİVRİHİSAR	37.4	35.8
4	JUNE	BARTIN	38.9	38
13	JUNE	DÜZCE	39.7	39
24	JUNE	NALLIHAN	39.5	38.4
20	JUNE	ELAZIĞ	39.8	38.6
18	JUNE	HORASAN	37.2	34.8
25	JUNE	ÇEMİŞGEZEK	38.7	38.4
23	JUNE	KARAKOÇAN	37.1	36.8
20	JUNE	PALU	40.1	40
19	JUNE	SARIZ	33.7	32
20	JUNE	BASKİL	36.8	36.2
24	JUNE	ELBİSTAN	37.6	36.6
20	JUNE	DOĞANŞEHİR	37.8	36.8
20	JUNE	GAZİANTEP	41.2	40.2
19	JUNE	KİLİS	42.7	42.5
25	JUNE	ADIYAMAN	43	41.5
20	JUNE	DİYARBAKIR	42.2	42

Day	Month	Station	2024 Year Max. Temp. (°C)	Long Term Max. Temp. (°C)
20	JUNE	KAHTA	43.4	41.8
20	JUNE	SİVEREK	42.8	41.8
20	JUNE	VİRANŞEHİR	45.3	44
20	JUNE	BİRECİK	44.3	44
20	JUNE	CEYLANPINAR	47.8	46.9
20	JUNE	AKÇAKALE	45.3	44.2
18	JULY	ÇANAKKALE	39.8	39.2
21	JULY	UŞAK	40.4	40.2
14	AUGUST	DURSUNBEY	40.3	39.8
14	AUGUST	SALİHLİ	43.9	43.3
21	AUGUST	SİNOP	34.2	33.3
11	SEPTEMBER	SİNOP	33.5	33

#### 3. Precipitation

In 2024, Türkiye's mean areal precipitation was recorded at 537.2 mm. The annual average areal precipitation for the country, based on the 1991–2020 period, is 573.4 mm. This represents a 6.3% decrease compared to the long-term average and a 16.3% decline relative to the previous year's precipitation (Fig. 3.3).

During 2024, precipitation levels exceeded 1000 mm in Antalya, Giresun, and the eastern parts of Trabzon, Ordu, Rize, and Artvin. In contrast, precipitation was below with 400 mm in western Thrace, Central Anatolia, the eastern Aegean Region, as well as in Şanlıurfa and Gaziantep (Fig.3.1).

Precipitation levels increased by between 20 and 40% compared to the long-term average in Giresun, Trabzon, Ardahan, and the southern areas of Lake Van (Fig. 3.2).

Rize recorded the highest annual precipitation among the provinces, with 1869.8 mm. The most significant increase compared to the long-term average occurred in Trabzon, with a 27.9% rise. Conversely, Kırıkkale recorded the lowest annual precipitation at 316.1 mm, while Edirne experienced the most substantial decrease relative to the long-term average, with a decline of 35.0%.

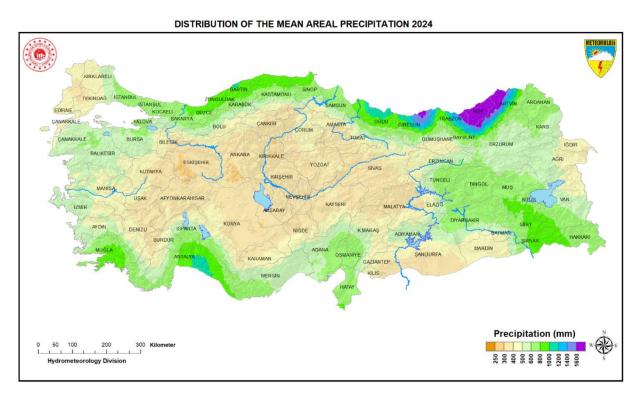


Figure 3.1. Distribution of the Mean Areal Precipitation in 2024 in Türkiye (URL 2).

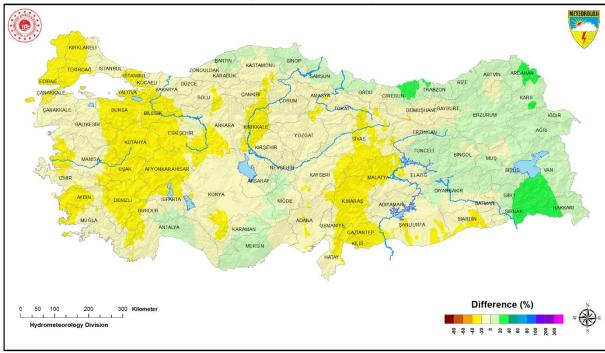


Figure 3.2. Mean Areal Precipitation Anomalies in Türkiye in 2024 (URL 2).

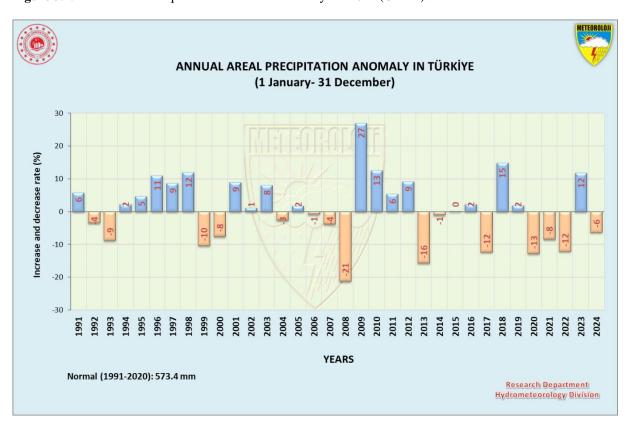


Figure 3.3. Annual Areal Precipitation Anomaly in Türkiye in 2024 (URL 2).

# 3.1. Monthly Precipitation

In 2024, areal precipitation across Türkiye was below normal in February, April, June, August, October, November, and December. January recorded the highest rainfall at 87.5 mm, while June was the driest month with only 11.9 mm (Fig. 3.4).

Notably, July was the wettest over the past 15 years, whereas June was the driest during the 23 years.

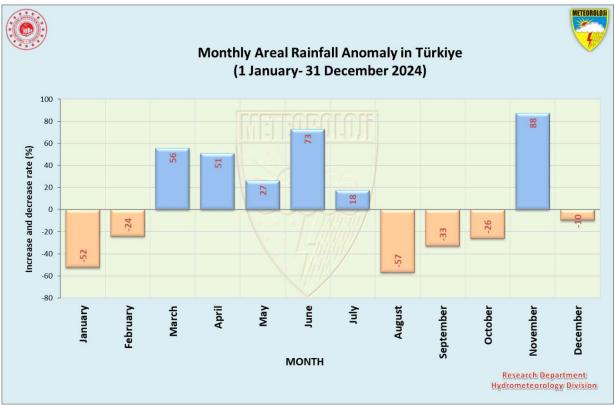


Figure 3.4. Monthly areal rainfall anomaly in Türkiye in 2024 (URL 2).

### 3.2. Seasonal Precipitation

Winter precipitation decreased by 7% compared to the seasonal average but increased by 66% relative to the previous winter (Fig.3.5).

Spring precipitation was roughly close to the seasonal norm; however, it diminished by 32% compared to the previous spring season (Fig.3.6).

Summer precipitation decreased by 9% compared to the seasonal average and by 30% relative to the previous summer rainfall. Notably, the Marmara Region experienced its lowest summer precipitation in the past 21 years, the Aegean Region in the past 12 years, and the Black Sea Region over the past 11 years (Fig.3.7).

Autumn precipitation declined by 13% compared to the seasonal average and by 29% relative to the previous autumn (Fig. 3.8).

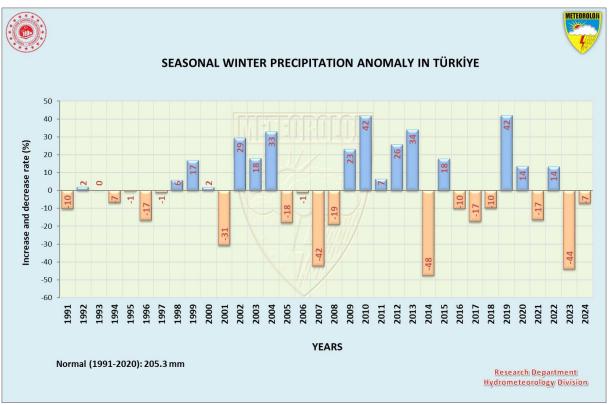


Figure 3.5. Winter Precipitation Anomaly in Türkiye in 2023-2024 (URL 2).

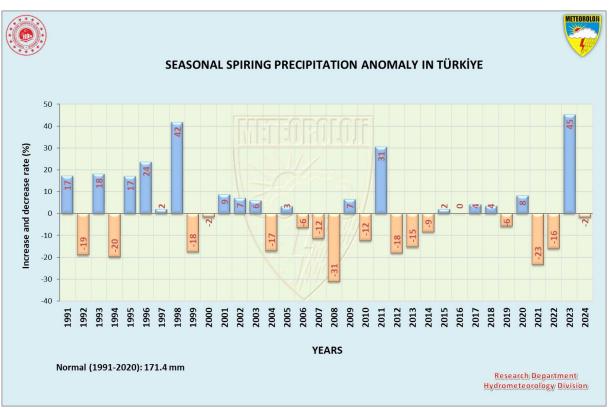


Figure 3.6. Spring Precipitation Anomaly in Türkiye in 2024 (URL 2).

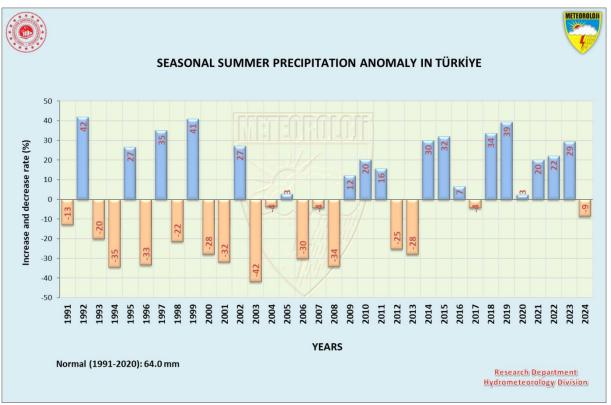


Figure 3.7. Summer Precipitation Anomaly in Türkiye in 2024

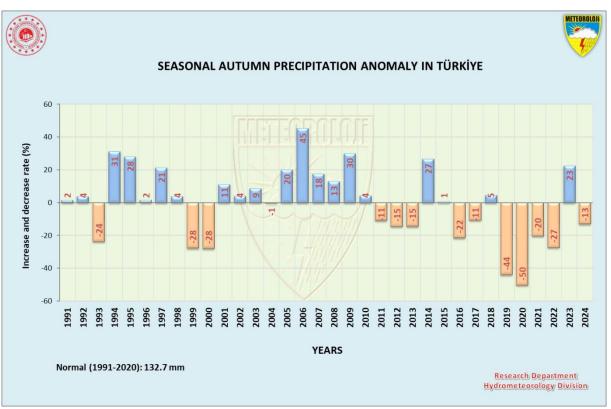


Figure 3.8. Autumn Precipitation Anomaly in Türkiye in 2024

# 3.3. Standardized Precipitation Index (SPI)

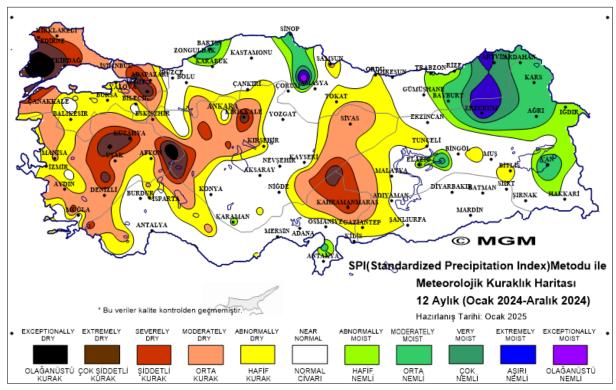


Figure 3. 9 Standardized Precipitation Index of Türkiye (URL 3)

According to the 12-month meteorological drought map prepared according to the Standardized Precipitation Index (SPI) Method, the central and western parts of Türkiye were exceptionally and slightly dry, the east was extremely and slightly humid, while other parts were around normal (Fig. 3.9).

# 4. Extreme Meteorological Events

The number of extreme events reached 1257 in 2024 according to TSMS's Database (Fig. 4.1).

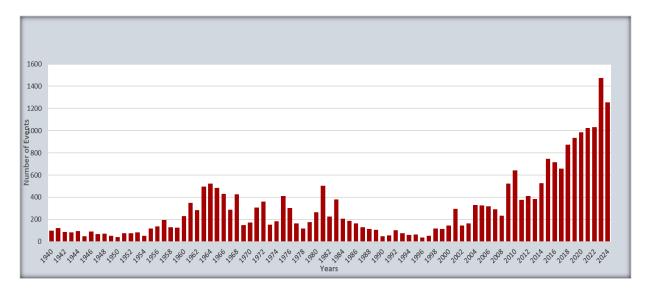


Figure 4. 1 Annual number of extreme events in Türkiye

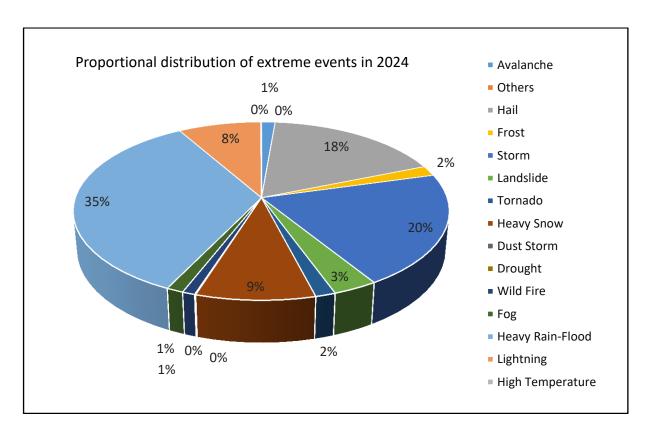


Figure 4. 2 Proportional distribution of extreme events in 2024

In 2024, the most hazardous extreme events were heavy rainfall and floods with 35%, storm with 20%, hail with 18%, heavy snow with 9%, lightning strikes with 8%, landslides with 3%, tornadoes with 2% and frost with 2%. Extreme events such as avalanches, wild fires, fog and sandstorms accounted for 1% or less of the total (Figure 4.2).

#### 4.1. Forest fire

On the night of August 15, 2024, a forest fire started on Mount Yamanlar, which is located in the Çiğli-Karşıyaka-Bayraklı and Bornova areas of İzmir. The fire was brought under control on August 18, 2024, and subsequently extinguished. A large portion of the southern slopes of Mount Yamanlar was either burned or damaged in the fire (Figure 4.3).



**Figure 4.3.** 15-18 August 2024, Forest fire in Izmir (*Source: Anadolu Agency*)

During the fire, the maximum air temperatures were as follows: in Çiğli, between 34-40°C; in Bayraklı, between 36-41°C; and in Karşıyaka, between 35-41°C. Relative humidity values dropped to 19% in Çiğli, 10% in Bayraklı, and 15% in Karşıyaka. Maximum wind speeds, coming from northern directions, were recorded at meteorological stations near these locations, ranging between 46 and 57 km/h.

The fire that started in Karatepe area of Yamanlar neighborhood in Karşıyaka district reached residential areas. Many houses and workplaces were damaged in the fire. 16 houses were burned, 87 houses and 45 workplaces were evacuated (URL 4).

The forest fire, which started in the forest area on Yamanlar Mountain, spread across the borders of 3 districts and affected an area of 2,159 hectares (URL 5).

# 4.2. Heavy Rain-Flood

On February 12, 2024, in Antalya and its surroundings, intense rain showers and thunderstorms that began in the night and increased in severity over time. The thunderstorms and hail led to flooding. Due to the heavy rain, water accumulated on roads and underpasses, causing disruptions in transportation. Many vehicles were stranded (see Figure 4.4).

Flooding also caused loss of life. The lifeless body of one person was found in a car at the Gıyaseddin Keyhüsrev Underpass on Gazi Boulevard in Kepez district (URL6).

Because of the flood, education was suspended for one day in 5 districts of the city (Aksu, Döşemealtı, Kepez, Konyaaltı, and Muratpaşa) (URL 7).



**Figure 4.4.** 12-14.02.2024, Antalya heavy rain and flood (*Source: Anadolu Agency*)

A large number of homes and businesses were flooded. Due to the rainfall, a total of 3,862 buildings were affected by flooding, including 3,297 residences, 519 businesses, and 46 public buildings (URL 8).

Agricultural areas were also damaged. 211 farmers experienced greenhouse damage across 1,200 decares of land (URL 9).

According to data from the Meteorology Regional Directorate 4, in a 24-hour period, the rainfall recorded was 304.9 kg/m² in Kepez, 233.9 kg/m² in Muratpaşa, 129.2 kg/m² in Konyaaltı, 106.9 kg/m² in Serik, and 80.2 kg/m² in Kemer (URL 6).

# 4.3. Lightning

On the afternoon of Friday, July 5, 2024, a severe thunderstorm with heavy rain, storms and hail struck Amasya province. As a result, there was damage to homes, businesses, roadways, power lines, vehicles, and agricultural lands. In the Kışlacık Village highlands of Amasya, 76 sheep in a flock gathered by three shepherds under a tree were killed by a lightning strike. One of the shepherds affected by the lightning was taken to the hospital (URL 10).



Şekil 4.5. 5 Temmuz 2024 Amasra Kışlacık Köyü Yaylası yıldırım düşmesi (www.haberler.com)

Drivers and vehicles experiencing difficulties in traffic took shelter at gas stations. Some trees were broken and toppled due to the storm.

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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

