

**National Climate Bulletin and Verification of the SEECOF-33 Summer
2025 forecast**

DIVISION of CLIMATOLOGY – APPLICATIONS
HELLENIC NATIONAL METEOROLOGICAL SERVICE

A. Mamara, E. Chatziapostolou, N.Karatarakis

Part A

1. Temperature

1.1. Analysis of the summer 2025 air temperatures anomalies for Greece

Summer 2025 was warmer than normal (relative to 1991-2020) in entire Greek region (Figure 1). The greatest positive temperature anomalies of more than 1.6 °C were observed over east-central mainland and the lowest positive anomalies of below 0.5 °C were observed over Cyclades and Southeast Aegean Islands.

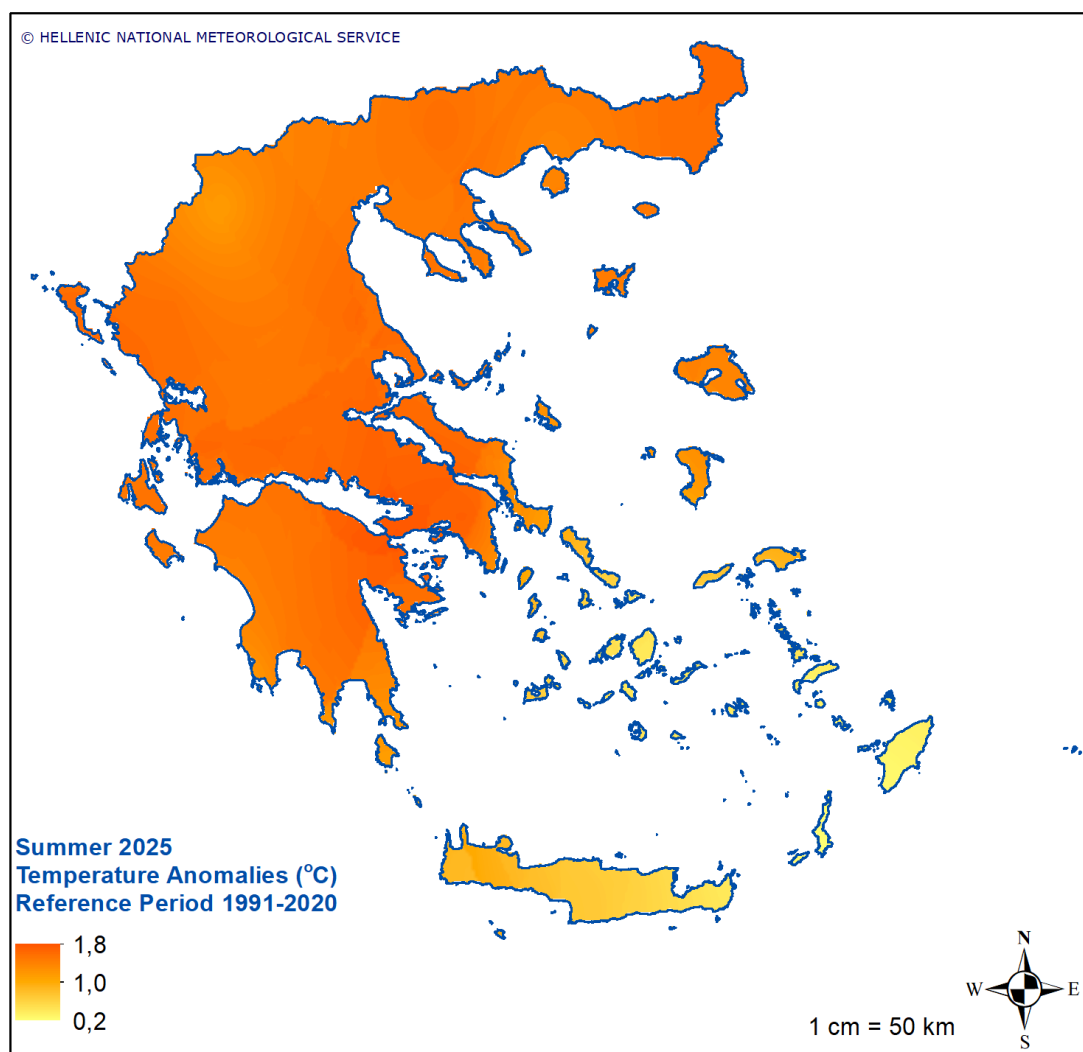


Figure 1. Mean temperature anomalies (°C) for summer 2025 in Greece according to the 1991-2020 climatology.

In order to quantify the observed seasonal temperatures in terms of cold, warm and normal, we have used the percentile method. The percentiles were calculated for

each station and are based on homogenized data for the period 1960-2022. According to percentile ranks (Figure 2):

- Extremely warm conditions prevailed (60% of stations).
- Twelve stations experienced very warm conditions and only three stations warm conditions.
- Only two stations experienced normal conditions.

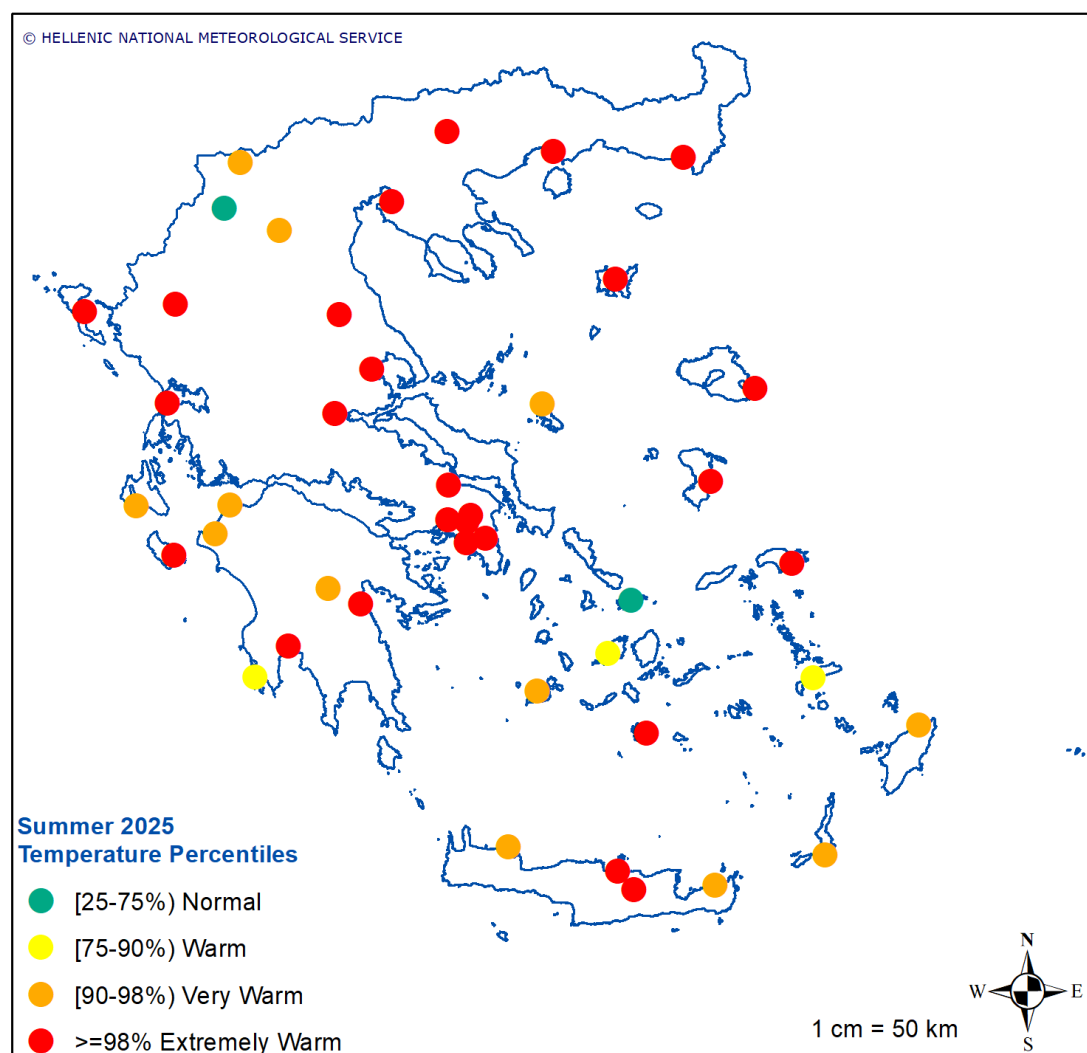


Figure 2. Mean temperature percentiles for summer 2025 (based period 1960-2022).

1.2. Verification of the SEECOF-33 summer 2025 temperature outlook for Greece

The seasonal forecast for summer suggested that the mean temperature would be above normal in mainland areas with the greatest temperature anomaly (3-4°C) occurring in north Greece (Figure 3). The consensus statement of SEECOF-33 mentioned that in the entire Greek region, summer temperatures were likely to be above-normal, with 70 % probability (Zone 1 in Figure 4).

Verifying the seasonal forecast for summer, the prediction was partially successful, because warmest conditions were observed over east-central mainland of Greece.

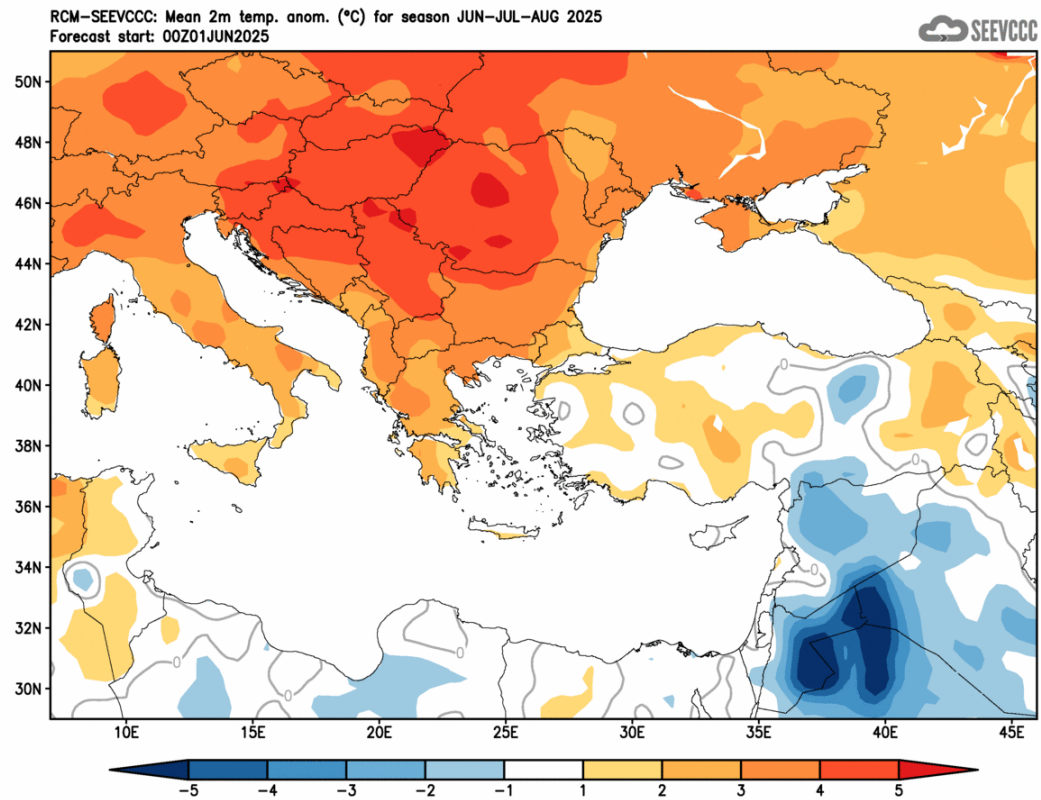


Figure 3. Mean temperature anomaly for summer 2025.

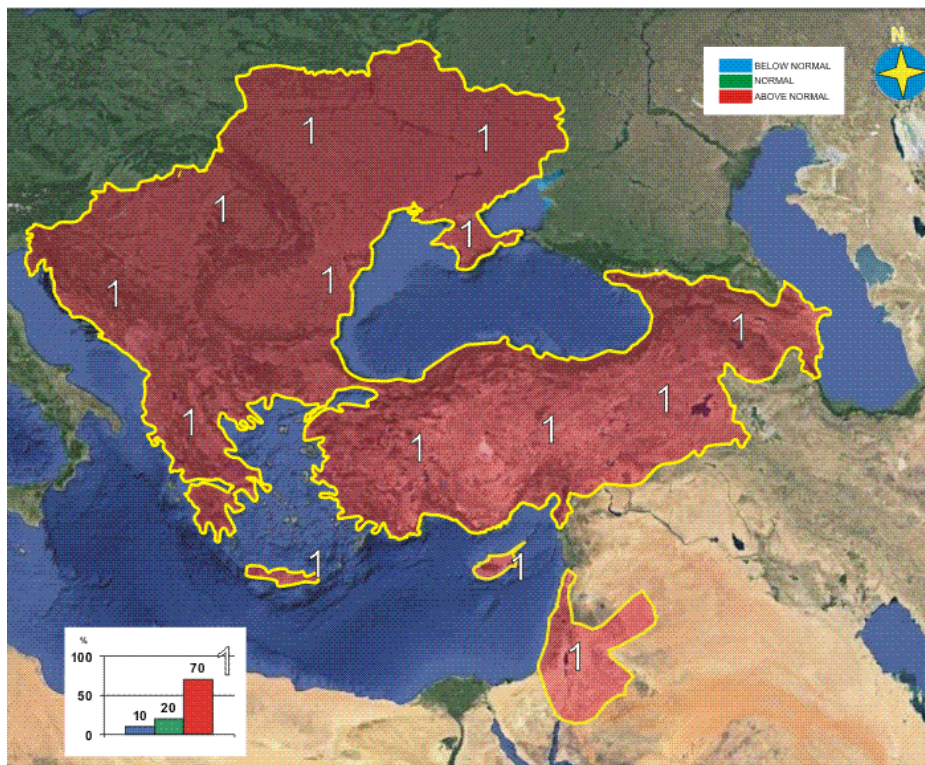


Figure 4. Graphical presentation of the summer 2025 temperature outlook.

Part B

2. Precipitation

2.1. Analysis of the summer 2025 precipitation anomalies in Greece

Summer 2025 was drier than average across most of Greece, with summer precipitation totals accounting for less than 50% of the 1991-2020 normal values. However, northwest Greece had above-normal summer precipitation totals accounting for more than 150 % of 1991-2020 normal values (Figure 5).

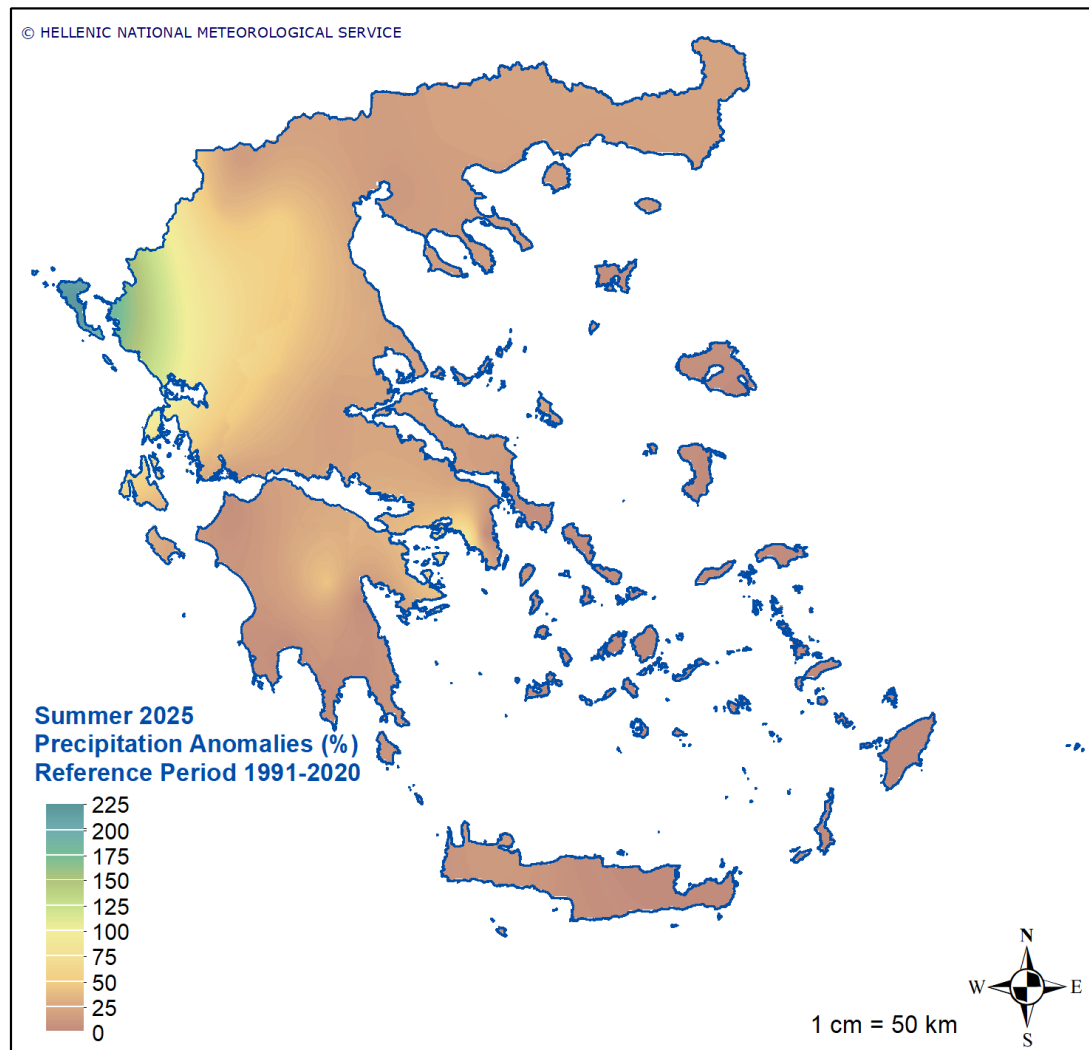


Figure 5. Summer 2025 precipitation anomalies (1991-2020) given in percentages.

In order to quantify the observed precipitation height in terms of wet, dry and normal we have used the percentile method. The percentiles were calculated for each station and are based on homogenized precipitation series for the period 1960-2022.

According to precipitation percentile ranks (Figure 6):

- Normal conditions prevailed in Greece (54% of the examined stations).
- Ten stations experienced dry conditions, six stations very dry conditions and three stations extremely dry conditions (44 % of the examined stations).
- One station in the Ionian Islands experienced very wet conditions.

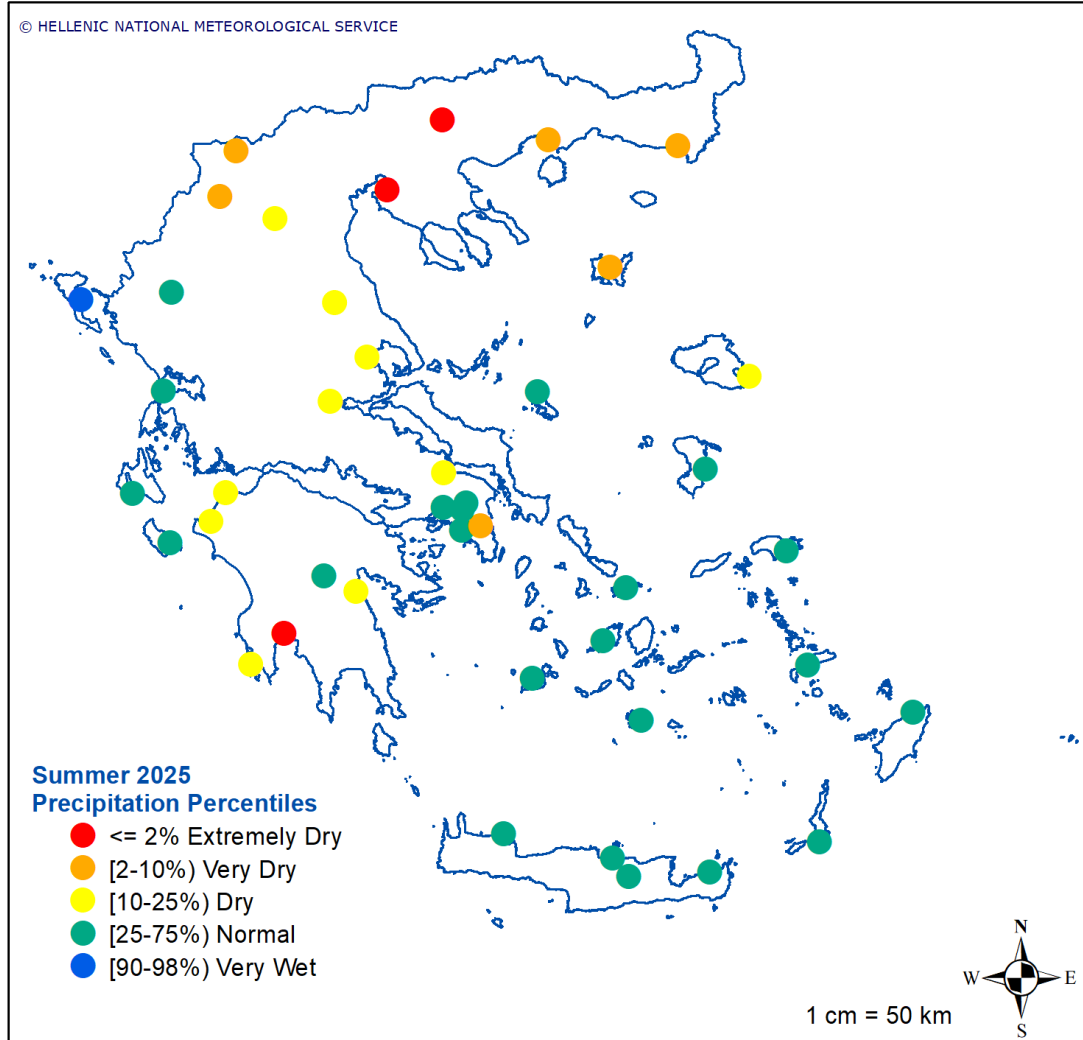


Figure 6. Precipitation percentiles for summer 2025 (based period 1960-2022).

2.2. Verification of the SEECOF-33 summer 2025 precipitation outlook for Greece

The seasonal forecast for precipitation predicted a dry summer in most of Greece, with areas in the west and south most likely to experience severe drought (Figure 7). According to the consensus statement of SEECOF-33 the northern parts of Greece would likely experience below-normal conditions (Zone 1 in Figure 8) while in the central and southern parts there was equal probability for summer precipitation (Zone 2 in Figure 8).

Verifying the consensus statement for summer, the seasonal forecast was partially successful since normal conditions prevailed over most of Greece, however northwest islands (e.g Kerkyra) received high precipitation amounts.

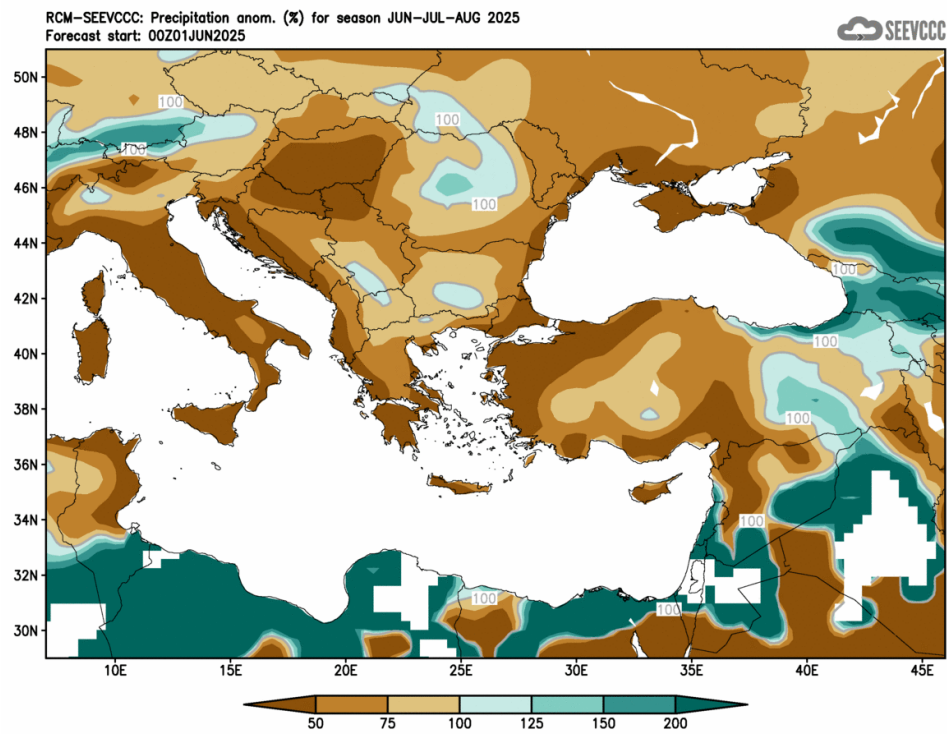


Figure 7. Precipitation anomaly for summer 2025.

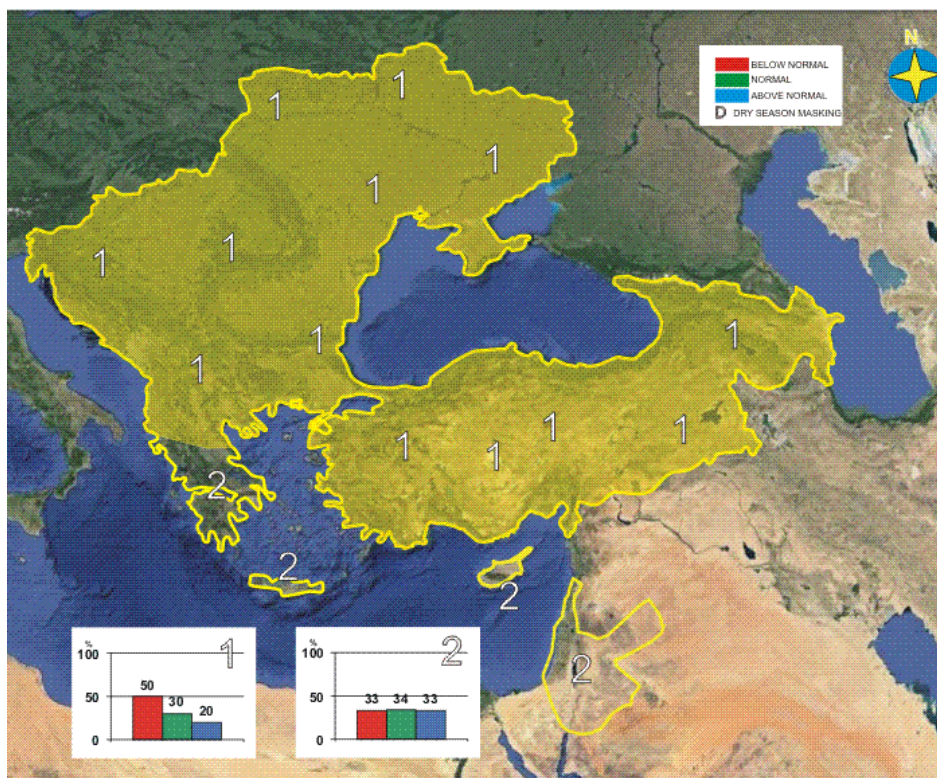


Figure 8. Graphical presentation of the summer 2025 precipitation outlook.

Table 1. Seasonal air temperature and precipitation sums - Ranks

Summer 2025		Seasonal air temperature (°C)					Seasonal precipitation sums (mm)			
Station	Rank*	33	50	67	Observed value	Rank**	33	50	67	Observed Value
Thessaloniki	2	26.3	26.7	27.1	28.7	62	50.3	64.9	87.8	6.9
Helliniko	2	27.4	27.8	28.1	29.9	24	9.2	15.3	21.9	21.2
Souda	3	25.5	25.9	26.2	27.3	34	0.1	1.8	5.9	1.2
Argostoli	3	25.3	25.6	26.2	27.7	35	6.4	15.1	26.8	14.4

*Rank: period 1960-2022 (warmest season)

**Rank: period 1960-2022 (highest seasonal precipitation)

Table 2. Verification of the SEECOF-33 Climate Outlook in Greece for Summer 2025.

Country	Seasonal temperature		Seasonal precipitation		High Impact Events
	Observed	SEECOF-33 climate outlook for temperature	Observed	SEECOF-33 climate outlook for precipitation	
Greece	Above normal	Above normal	Below or near normal	Below normal only over north Greece (zone 1)	A strong heatwave gripped Greece from July 20-27, 2025, with temperatures soaring past 42°C in many regions and reaching as high as 44°C.

Contact details

HELLENIC NATIONAL METEOROLOGICAL SERVICE

Division of Climatology - Applications

14 E. Venizelou Str.,

GR - 16777 Hellinikon, Greece

Phone: +302109699030, fax: +302109628952

<http://www.hnms.gr> ,

emails: 1. anna.mamara@hnms.gr

2. eleni.chatziapostolou@hnms.gr

3. karatarakis@hnms.gr