

VERIFICATION OF THE SEECOF-26 CLIMATE OUTLOOK FOR SUMMER 2021 SEASON in ARMENIA

HYDROMETEOROLOGY AND MONITORING CENTRE OF ARMENIA

CLIMATE DEVISION



YEREVAN-14 OCTOBER

Temperature: The average temperature in the summer of 2021 was 18.2 °C, which was 2.5 degrees above the norm (15.7 °C). High temperatures were registered in all three months of summer, the average monthly temperature deviations were 4.2 °C in June, 1.3 °C in July & 2.0 °C in August, respectively. June become the warmest since beginning of the observation in 1929.

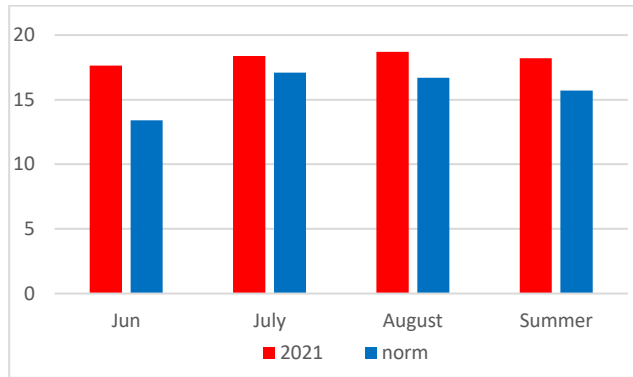


Fig 1. 2021 Summer Temperature

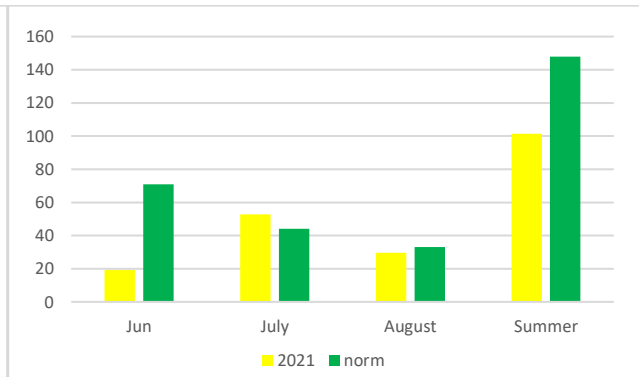


Fig 2. 2021 Summer Precipitation

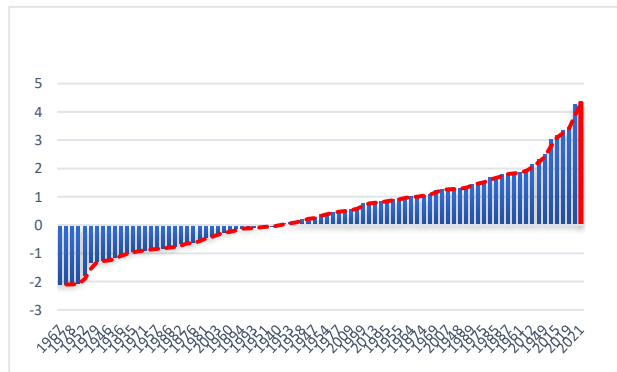


Fig 3. Jun Temperature anomalies

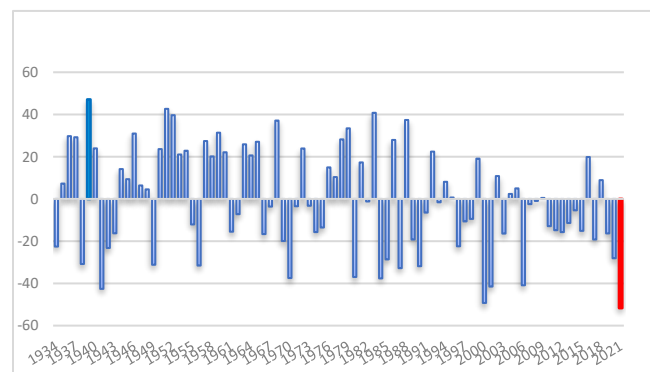


Fig 4. Jun Precipitation anomalies

According to Climate Change Assessment the average summer temperature increased by 1.8 °C during 1935-2021 period, while precipitation decreased by around 30% in same period in Armenia.

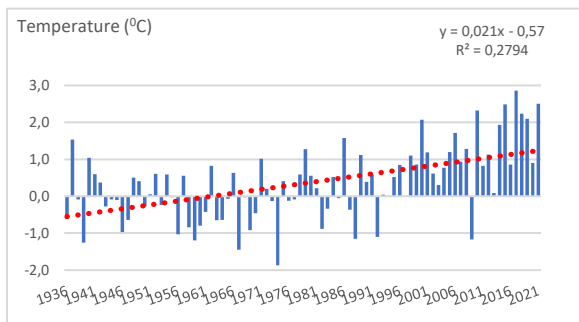


Fig 5. 2021 Summer Temperature anomalies

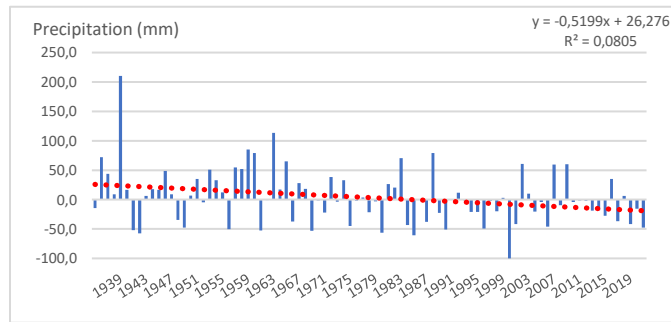
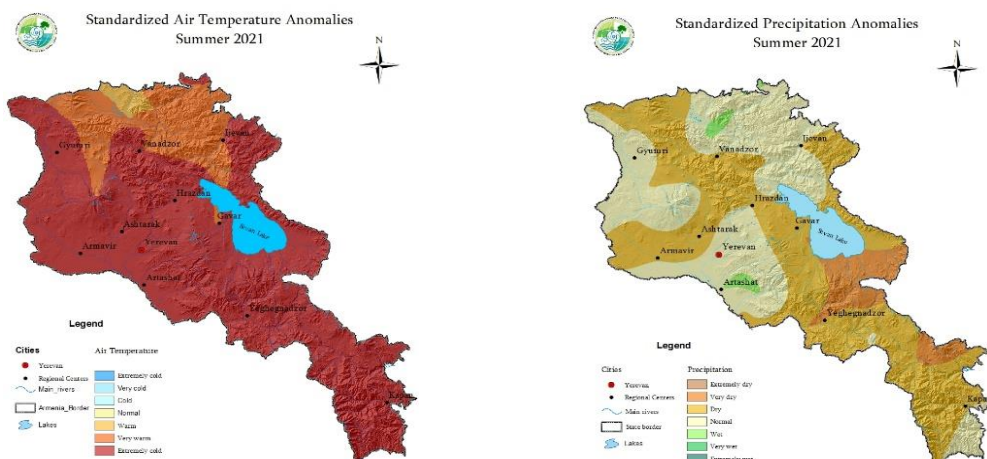


Fig 6. 2021 Summer Precipitation anomalies

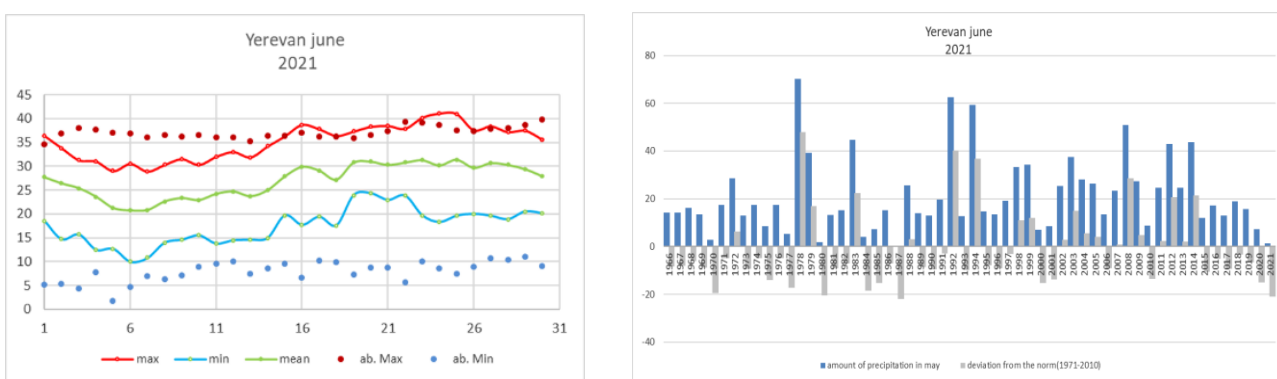
Precipitations

Precipitation amount was 70 % of the summer norm. June was first in dryness also. Precipitation amount was 27% of the long-term norm. No such dry June has been observed since 1935. No rain was registered in the lowlands of Syunik and Ararat valley. July was relatively wet: precipitation amount was 120 percentage of the norm.

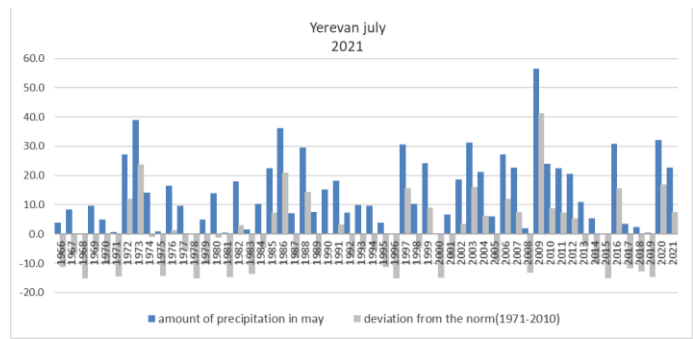
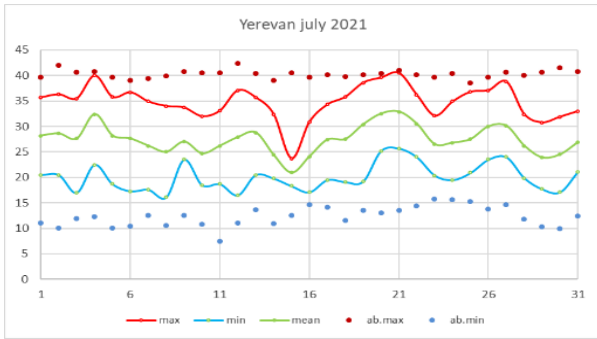


The average monthly temperature in Yerevan in June was 27 ° C, which exceeded the norm (22.6 ° C) by 4.4 ° C. It as the hottest June in the whole period of observations. The maximum temperature recording was 41.1 ° C June 24, which exceeded the absolute maximum value ever-recorded (41 ° C in 2016). The maximum temperature observed during June 16-27 exceeded the maximum values ever recorded on those days. The minimums were 8-18 ° C higher than the minimums ever observed. The amount of rain was only 5% of the norm (24 mm).

2021 summer temperature and Precipitations in Yerevan



The average temperature in July was 27.5 ° C, which is within the norm (27.1 ° C) with a positive deviation. In the first decade, the average air temperature exceeded the norm, the maximum deviation was observed on July 4 and was 7.4 ° C. In the second decade of the month, large temperature fluctuations were observed, either a sharp decrease from the norm to 6 ° C, or an increase as much. 23 mm of rain was observed in July, the amount of precipitation was 134% of the norm (17 mm).



The average temperature in August was 27.9 ° C, the norm (26.9 ° C).

Only 3 mm of rain was observed in August, the amount of precipitation was 28% of the norm (10 mm).

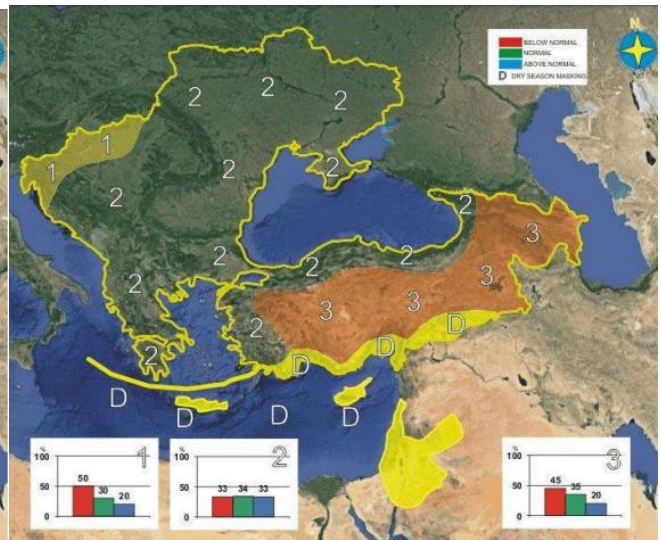
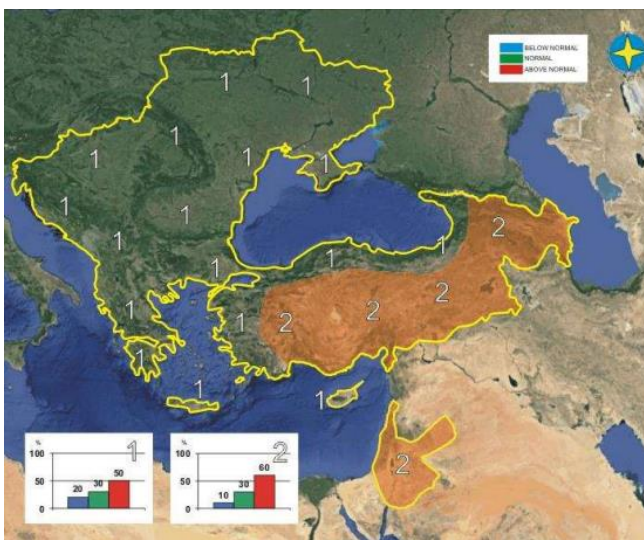
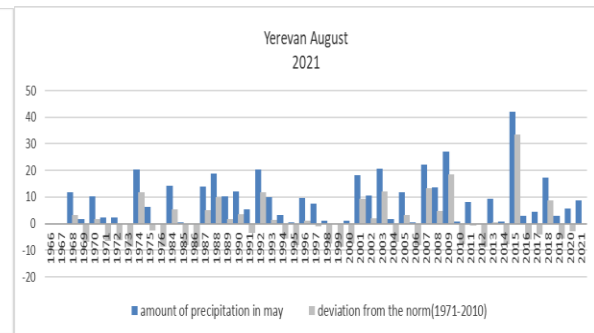
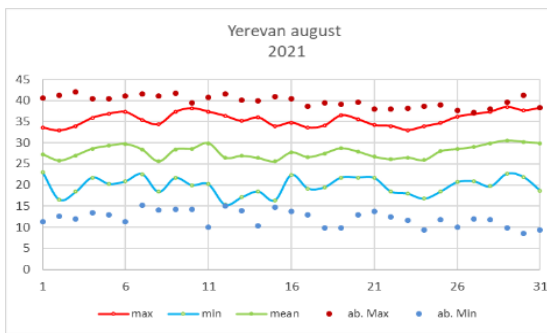


Figure 7. Graphical presentation of the 2021 summer temperature and precipitation outlook

Verification showed that the forecast for hot and dry summer was correct.

Country	Seasonal temperature (Summetr-2031)	Seasonal temperature	Seasonal precipitation	Seasonal precipitation	High Impact Events
	Observed	climate outlook	Observed	climate outlook	
Armenia (1)	Above normal	above the normal (60%, 10%, 20%)	Below the normal	Below the normal (45%, 35%, 20%)	<p>The maximum temperature exceeded the maximum value ever observed in Areni 41.3 °C (June 25), Yerevan 41.1 °C (June 24), Ararat 41.3 °C (July 21)</p> <p>Heat wave and Drought: There has been a sharp increase in the number of hit days and drought in the considering period. Hit wave observed on June 15-30, July 1-6, July 19-21, August 5-10, 27-31. The duration of the wave observed in June was quite long 15 days. The maximum deviation of the maximum temperature from the norm was 14.9 °C the maximum deviation of the average temperature from the norm was 19.1 °C.</p> <p>Heavy rainfall In Fantan 30 mm /12 hours in July 2 and July14, In Yerevan 33mm/3 hours (July 14), in Aparan 30mm/12 hours (8.08), in Masrik (August14) during the period 14:00-14:45, heavy rain, thunderstorm and large hail ware observed.</p> <p>Strong wind: 20 m / s with the gust 25 m / s, in Armavir, in Jun 5 and 20 m / s with the gust 30 m / s in June 27were observed. In the ljevan 8-10 m / s with the gusts 25- 27 m / s in July 2, 13 and19 were observed.</p> <p>Dust storm: in Ararat Valley was recorded with the wind speed of 16m/sec.</p>

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