

Assessment of the SEECOF-15 Climate Outlook for Slovenia for summer season 2016

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SEECOF-15 Climate Outlook for Slovenia for summer season 2016

The consensus statement of SEECOF-15 stated that the area of Slovenia (as most of Ukraine, the Pannonian Plain and most of the Balkan Peninsula) was likely to experience above- or near normal summer temperatures (zone 3 in Figure 1). The probabilistic forecast for the tercile categories of anomalies for summer mean temperature, relative to the period 1981–2010, was 20 %, 40 % or 40 % for below-, near- or above average conditions.

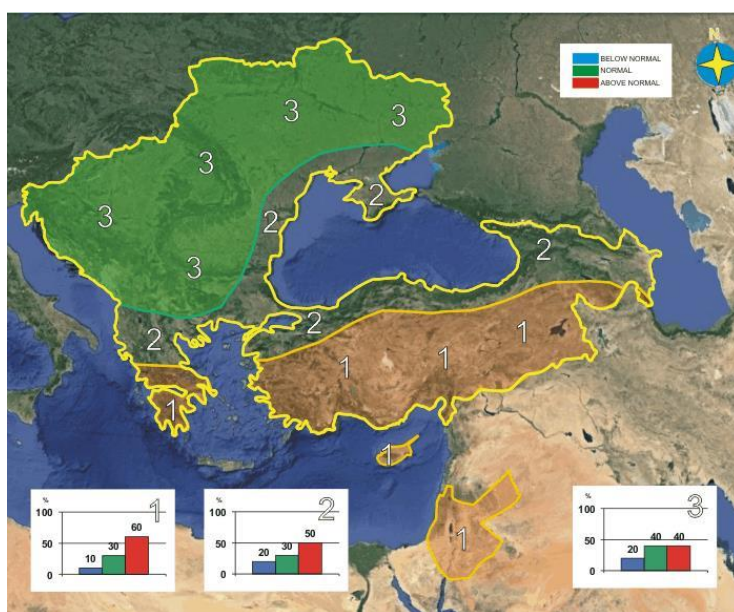


Figure 1. Graphical presentation of the 2016 summer temperature outlook

For precipitation, the uncertainties in regional prediction were higher than for temperature. Summer precipitation conditions outlook for Slovenia stated that probabilities for below-, near- or above- average conditions were approximately equal. The probabilistic forecast for the below-, normal- or above-normal tercile categories for summer precipitation, relative to the period 1981–2010, was 33 %, 34 % or 33 % (zone 2 in Figure 2). For the certain part of the country, particularly mountain region, the possibility for near- or above- normal summer precipitation totals due to the episodes of enhanced convection accompanied by heavy precipitation were predicted.

Figures 1 and 2 show the probabilistic consensus forecast for tercile categories of anomalies of seasonal temperature and precipitation, relative to the period 1981–2010.

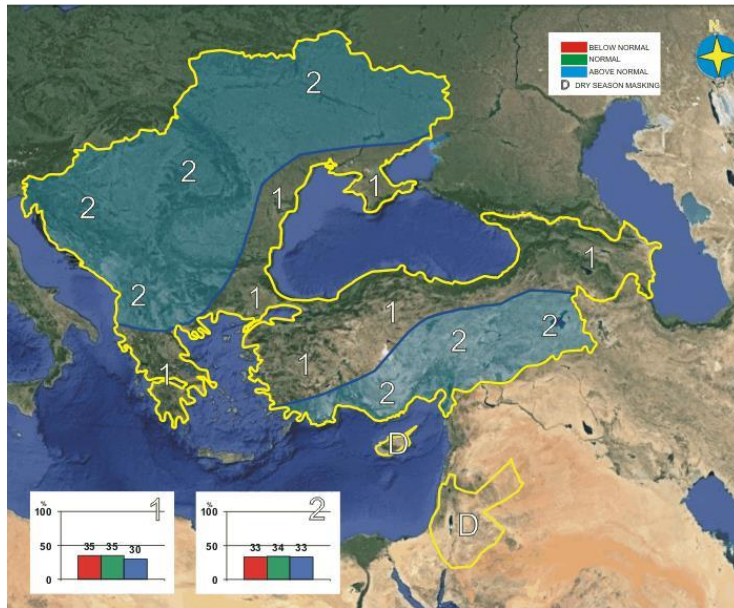


Figure 2. Graphical presentation of the 2016 summer precipitation outlook

Analysis of summer season 2016

Average air temperature in summer 2016 in Slovenia was above the multi-annual average of the 30-year period 1981–2010. Corresponding air temperature anomalies for summer 2016 (months June, July and August) were between 0.5°C to 1.7°C (Figure 3). Anomalies didn't exceed 2 °C. The summer 2003 remains the hottest summer in Slovenia on record. In the most part of the country except for the south and parts of north and northeast, the anomalies didn't exceed 1 °C. Anomalies between 1 °C and 2 °C were detected in the southern part of the country, especially in the southwest part of the country, in the northern part of Ljubljanska kotlina and in parts of the northeast of Slovenia in Dravsko-Ptujsko polje.

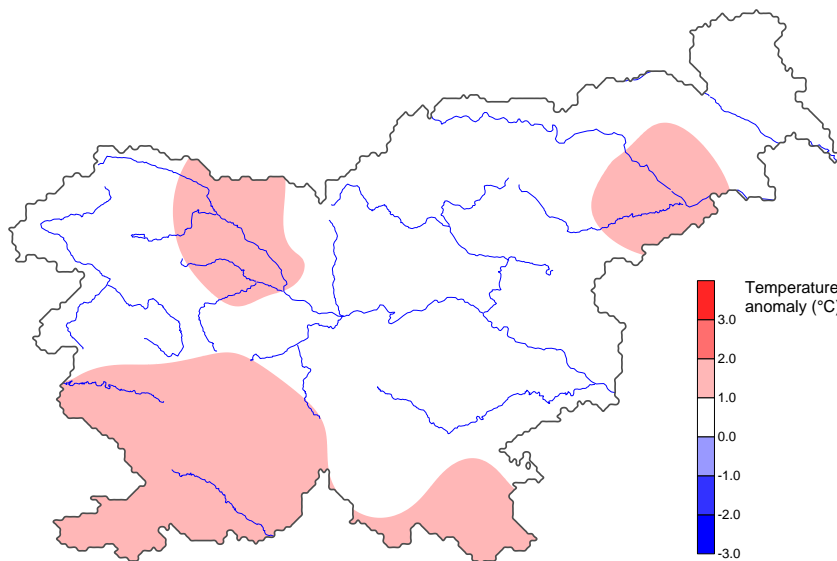


Figure 3. Mean air temperature anomaly in Slovenia in summer 2016, relative to the 1981–2010 average. Data are from 29 climate stations.

According to tercile ranks, thermal conditions in Slovenia in summer 2016 were above normal, relative to the period 1981–2010, for the whole country (Figure 4).

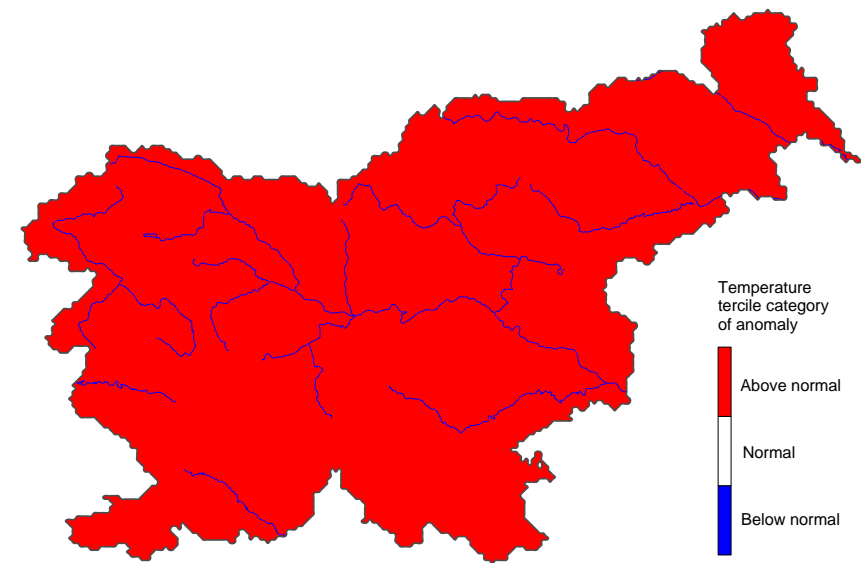


Figure 4. Mean air temperature tercile category of anomaly in Slovenia in summer 2016, relative to the period 1981–2010. Data are from 25 climate stations.

Precipitation index in summer 2016 in Slovenia, relative to the period 1981–2010, was mainly average and below average (Figure 5). Only in small parts of Slovenia precipitation index exceeded 100 %. Precipitation index was within the range from 60 % to 135 %.

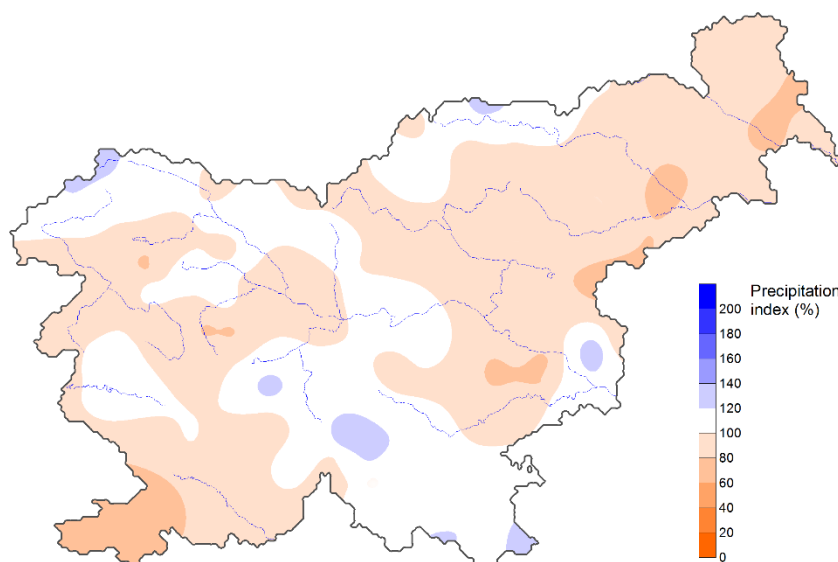


Figure 5. Precipitation index in Slovenia in summer 2016, relative to the 1981–2010 average. Data are from 156 precipitation stations.

In the most part of Slovenia precipitation were within the second (normal) tercile, compared with 1981–2010 average (48.7 % of stations), precipitations in 32.7 % stations were above normal tercile and 18.6 % of stations below normal tercile (Figure 6). Precipitation were

below normal in the coastal areas and in parts of west Slovenia, normal and below normal in the north-eastern part of the country and above normal in parts of the north and east south of the country.

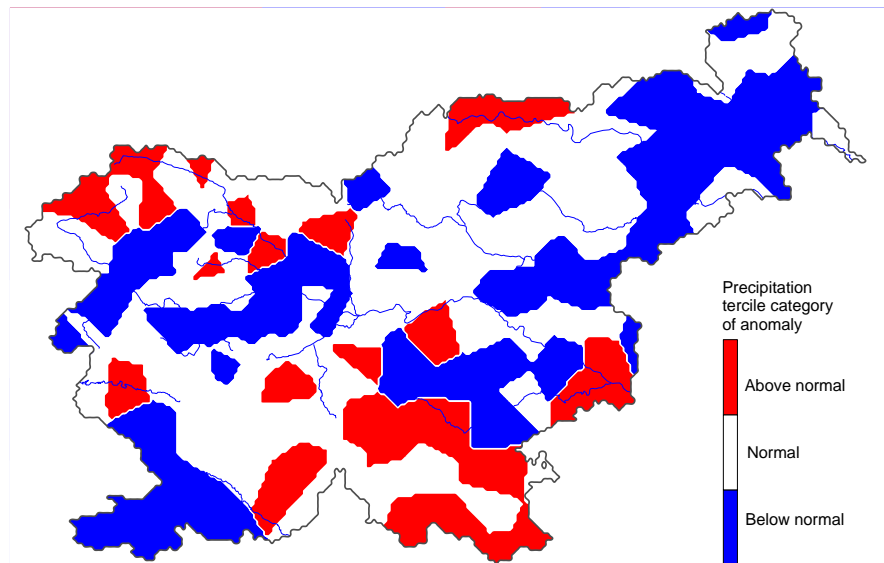


Figure 6. Precipitation tercile category of anomaly in Slovenia in summer 2016, relative to the period 1981–2010. Data are from 156 precipitation stations.

The summary for summer 2016 and monthly (June, July and August) temperature and precipitation conditions can be found in the Table 1.

Table 1. The summary for summer 2016 temperature and precipitation in Slovenia

SLOVENIA	Temperature anomaly, relative to the period 1981–2010	Precipitation index, relative to the period 1981–2010
June 2016	0.4 to 1.7 °C	64 to 225 %
July 2016	1.1 to 2.5 °C.	15 to 183 %
August 2016	-0.5 to 1.5 °C	20 to 160 %
Summer 2016	0.5 to 1.7 °C	59 to 136 %

High Impact Events

The highest daily maximum temperature in summer 2016 in Slovenia was measured at 12 July 2016 at two meteorological stations: Metlika and Črnomelj, both in south east of Slovenia. At both stations, daily maximum temperature reached 35.0 °C. No higher temperature was measured in Slovenia in summer 2016. There was also no distinctive heat wave in the season.

There were four episodes of serious weather in summer 2016:

25–27 June: strong thunderstorms with locally strong precipitation (in northern, eastern and southern parts of country), wind (in eastern part of country) and hail (in south: Brkini, Snežnik and Javorniki).

13 July: strong local thunderstorms in northern, eastern and northeastern parts of Slovenia.

15 August: strong local thunderstorms over areas of Maribor, Mislinjska dolina, central parts of the country and in east of the country.

29 August: strong local thunderstorms over areas of Slovenj Gradec, Velenje, Celje, Maribor, Škofja Loka, Vrhnika, Postojna and Ribnica.

Verification of the SEECOF-15 Climate Outlook in Slovenia for summer season 2016

In the table 2 a verification summary of the SEECOF-15 climate outlook for the summer season 2016 (JJA) can be found.

Table 2. SEECOF-15 climate outlook verification summary for Slovenia for summer 2016

Country	Seasonal temperature (JJA)		Seasonal precipitation (JJA)	
	Observed	SEECOF-15 climate outlook for temperature	Observed	SEECOF-15 climate outlook for precipitation
SLOVENIA	above normal	above- or near-normal	below-normal at approximately one fifth of the stations normal at approximately half of the stations above-normal at approximately one third of the stations	approximately equal probabilities for below-, near- or –above normal

Users' Perception of the SEECOF-15 Outlook

Slovenia Meteorological Service at the Slovenian Environment Agency at the moment doesn't provide seasonal outlook for the country.