

Guidance on drought, cold wave, heavy precipitation ID: 201808-u12

Area concerned:

Drought: Particularly parts of western, central and south-eastern Europe (France, Netherlands, Belgium, Luxembourg, Germany, Poland, Czech Republic, Slovakia, Hungary)

Cold wave: western, central, eastern and south-eastern Europe (France, Netherlands, Belgium, Luxembourg, Germany, Switzerland, Austria, Italy, Poland, Czech Republic, Slovakia, Hungary, Slovenia, Croatia, Bosnia-Herzegovina, Montenegro, Serbia, Romania, Moldova, Ukraine, Belarus, European Russia, Bulgaria, FYR of Macedonia, Albania, Greece, Turkey)

Heavy precipitation: eastern Mediterranean and Middle East (Turkey, Cyprus, Lebanon, Syria, Israel, Jordan)

Initial statement issued on 6 July 2018
First update issued on 20 July 2018
Second update issued on 3 August 2018
Third update issued on 17 August 2018
Fourth update issued on 24 August 2018
Fifth update issued on 07 September 2018
Sixth update issued on 19 September 2018
Seventh update issued on 2 October 2018
Eighth update issued on 16 October 2018
Ninth update issued on 24 October 2018
Tenth update issued on 2 November 2018
Eleventh update issued on 14 November 2018
Twelfth update issued on 26 November 2018



Valid: Begin: on 27 November 2018 End: 10 December 2018

<u>To:</u> Climate Watch focal points of NMHSs: France, Netherlands, Belgium, Luxembourg, Germany, Switzerland, Austria, Italy, Poland, Czech Republic, Slovakia, Hungary, Slovenia, Croatia, Bosnia-Herzegovina, Montenegro, Serbia, Romania, Moldova, Ukraine, Belarus, Russia, Bulgaria, FYR of Macedonia, Albania, Greece, Turkey, Cyprus, Lebanon, Syria, Israel, Jordan

The RA VI RCC Network Offenbach Node on Climate Monitoring (RCC Node-CM) is responsible for providing Climate Watch guidance information for NMHSs' own consideration for issuing climate advisories for their territory.

After having consulted the consortium partners of the RCC Node-CM and RCC Node-LRF (RA VI RCC Network Toulouse and Moscow Node on Long-Range Forecasting), RCC Node-CM issues the following guidance information:



Due to the results from monthly forecasts we expect:

"1. A continuation of the drought situation for at least the next two weeks for parts of central Europe is expected. The probability is locally more than 70% that precipitation will be below the lower tercile.

This drought may be accompanied by water scarcity, low river levels and harvest losses since soil moisture is reduced.

2. A continuation of a cold wave over central, eastern and south-eastern Europe, but retreating to the east during the next two weeks is expected. The probability for this development is estimated to more than 90% for the first week and 70-90% for the second week.

The cold wave will cause widespread frost even in lowlands, which might have dangerous impact on vegetation and health after a preceding long mild period.

3. A continuation of a period of above-normal precipitation in the Eastern Mediterranean subregion and in the Middle East is expected for at least the next two weeks. The probability is estimated to 80-90% for the first week and around 60% for the second week.

The enhanced precipitation can cause local flooding and landslides. "

This information should be used as guidance for the National Meteorological and Hydrological Services (NMHS) in a preoperational mode. It is up to the above mentioned NMHSs to closely monitor the status and evolution of the current climate conditions and to consider issuing a national Climate Watch Advisory. RCC Node-CM would appreciate feedback from NMHS whether this information was helpful. Also, any suggestion on further pieces of information needed by NMHSs is highly welcomed!

On demand we provide you with a template for a national climate watch advisory as agreed among the climate watch pilots and RCC Node-CM.

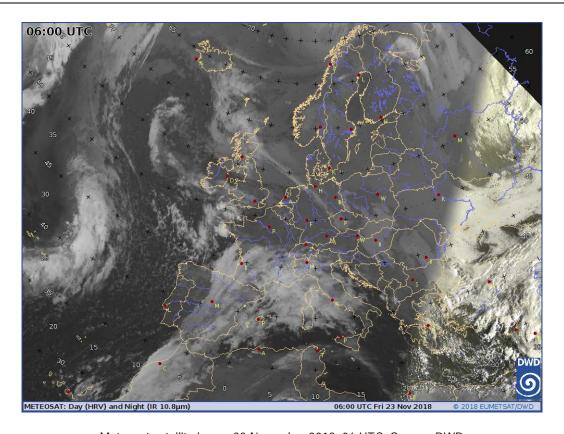
Please note that further information can be obtained from RCC Node-CM website (www.dwd.de/rcc-cm) concerning Climate Monitoring and from RCC Node-LRF websites (http://neacc.meteoinfo.ru/forecast) concerning Long-Range Forecast or by e-mail to rcc.cm@dwd.de or rcc.lrf-mf@meteo.fr.

For ECMWF member's further information on monthly forecasts after logging in is provided at http://www.ecmwf.int/ ->Forecasts

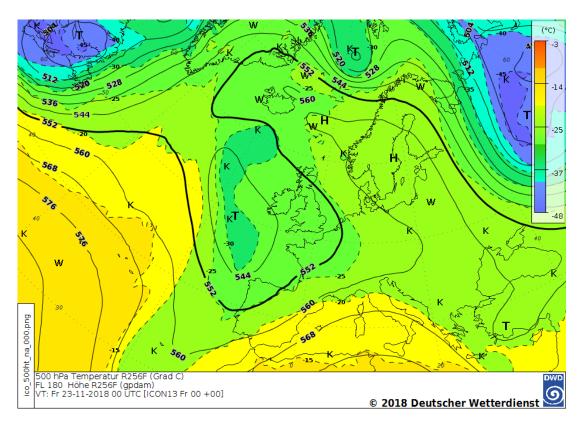
We will monitor the evolution of the anomaly, issue updates if significant change arise and close the advice when no clear signal can be detected in the forecasts.

On behalf of the RCC Node-CM Team



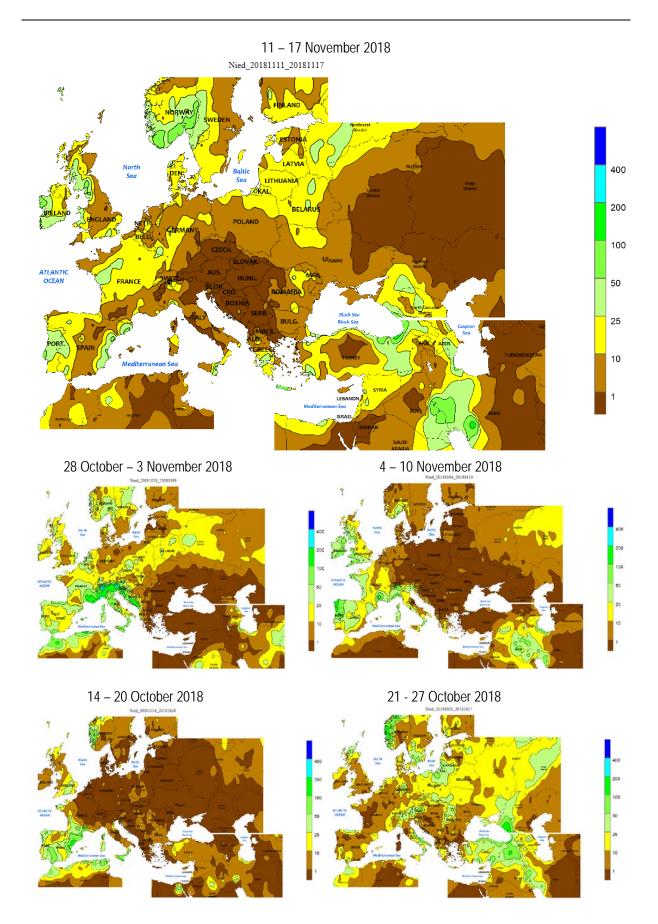


Meteosat satellite image 23 November 2018, 06 UTC. Source: DWD

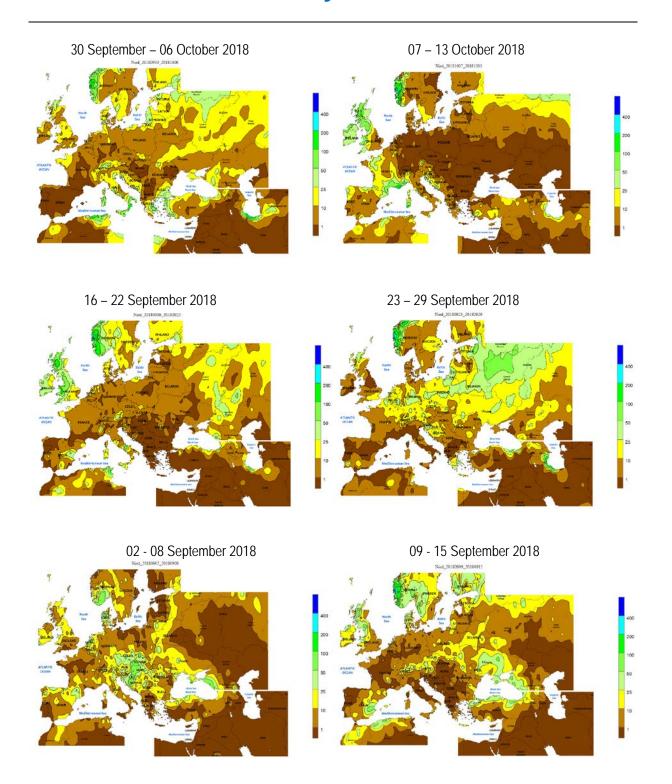


500 hPa chart, 23 November 2018, 00 UTC. Source: DWD

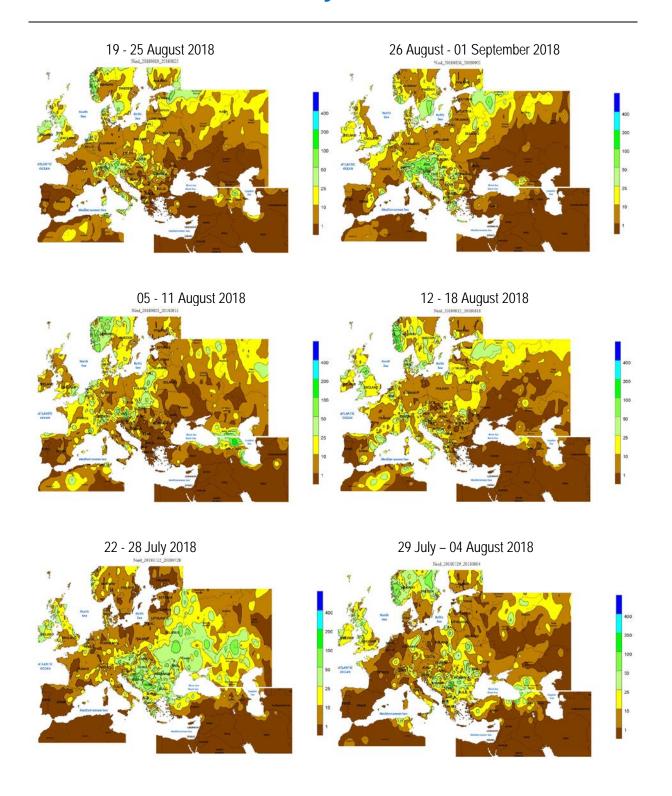




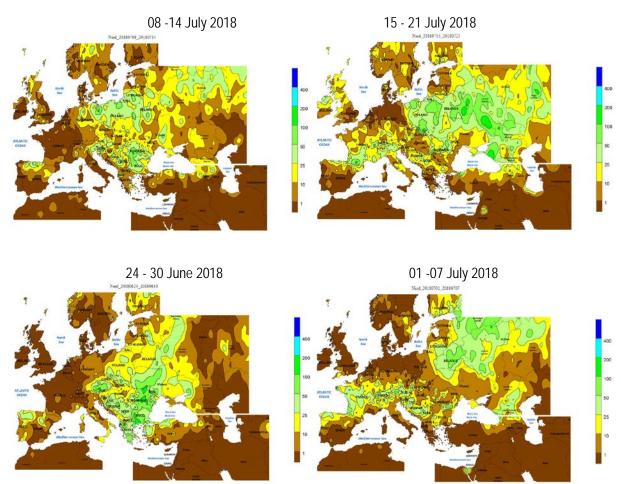






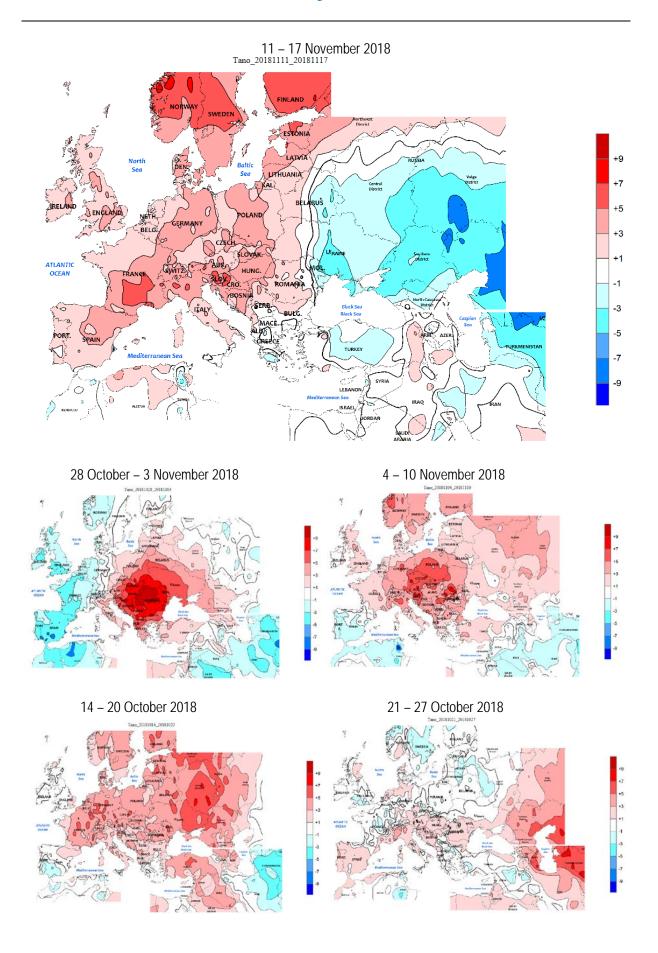




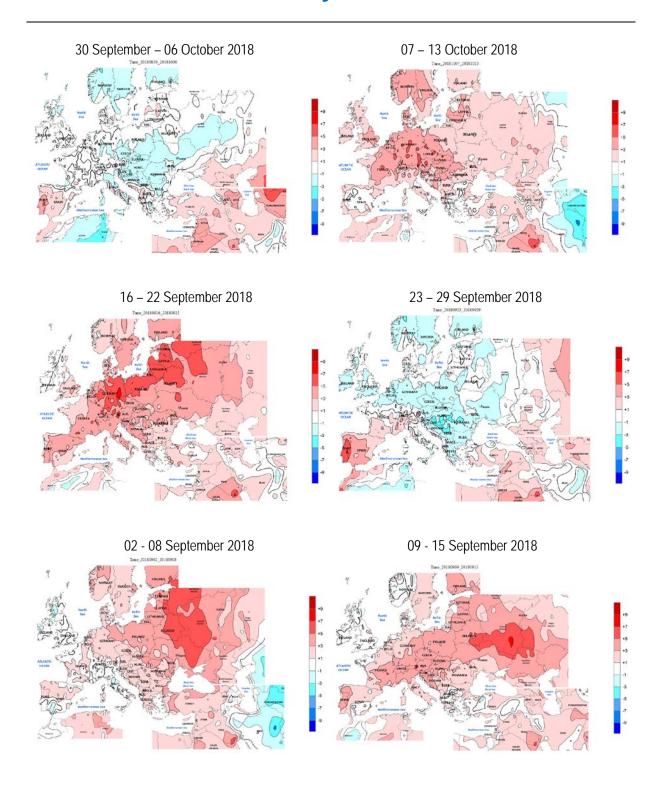


Weekly precipitation totals in mm for the last weeks (source: Climate Prediction Center, USA)

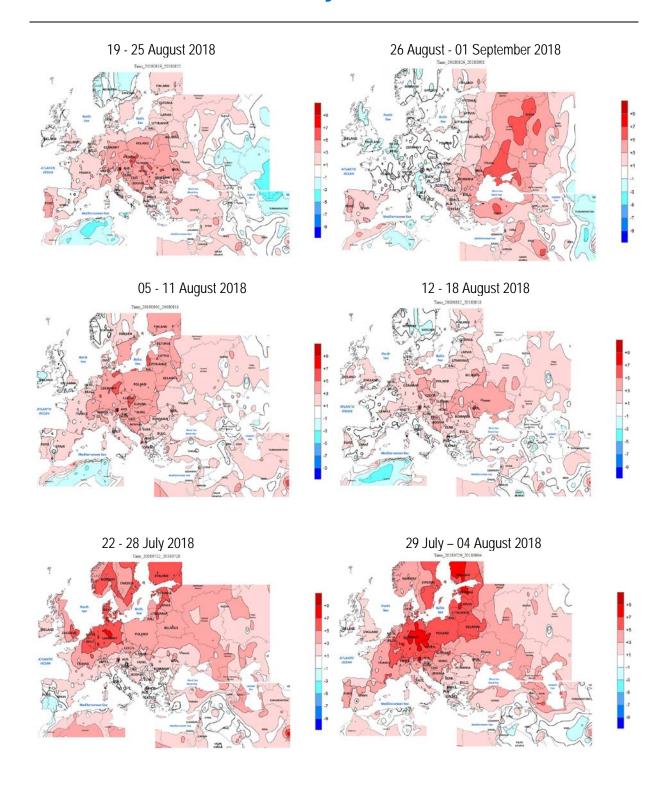




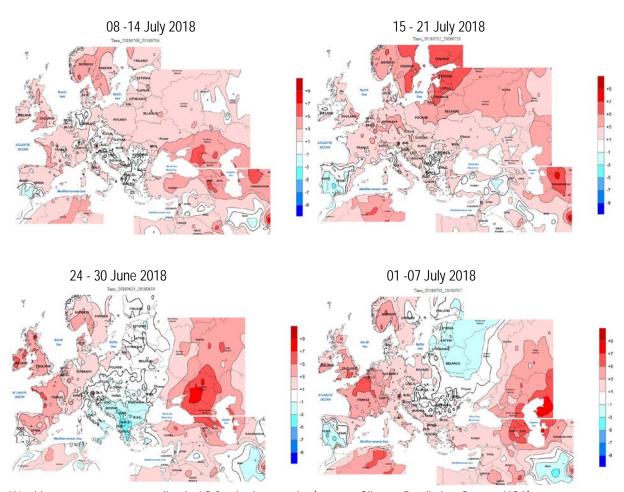






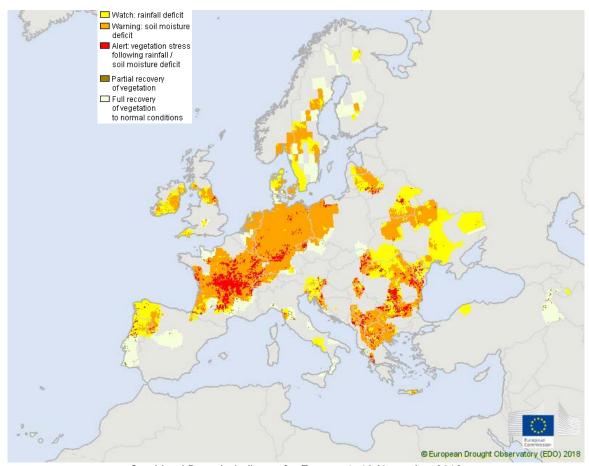




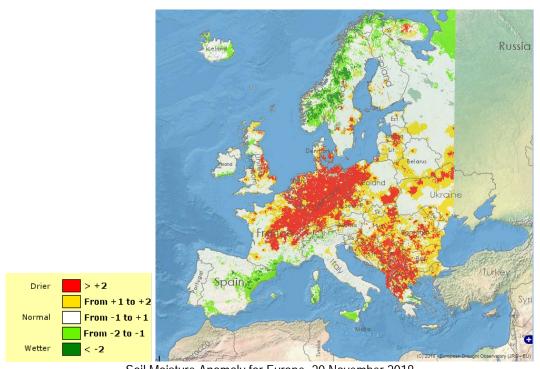


Weekly temperatures anomalies in °C for the last weeks (source: Climate Prediction Center, USA)



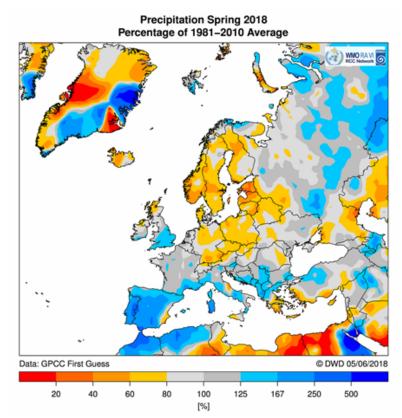


Combined Drought Indicator for Europe, 1 -10 November 2018 (Source: http://edo.jrc.ec.europa.eu/edov2/php/index.php?id=1000#)

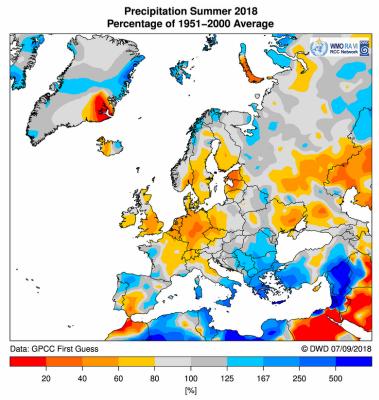


Soil Moisture Anomaly for Europe, 20 November 2018 (Source: http://edo.jrc.ec.europa.eu/edov2/php/index.php?id=1111)





Spring (March, April, May) 2018 precipitation anomalies as percentage of the long term mean (source: DWD RCC-CM, https://www.dwd.de/rcc-cm)



Summer (June, July, August) 2018 precipitation anomalies as percentage of the long term mean (source: DWD RCC-CM, https://www.dwd.de/rcc-cm)