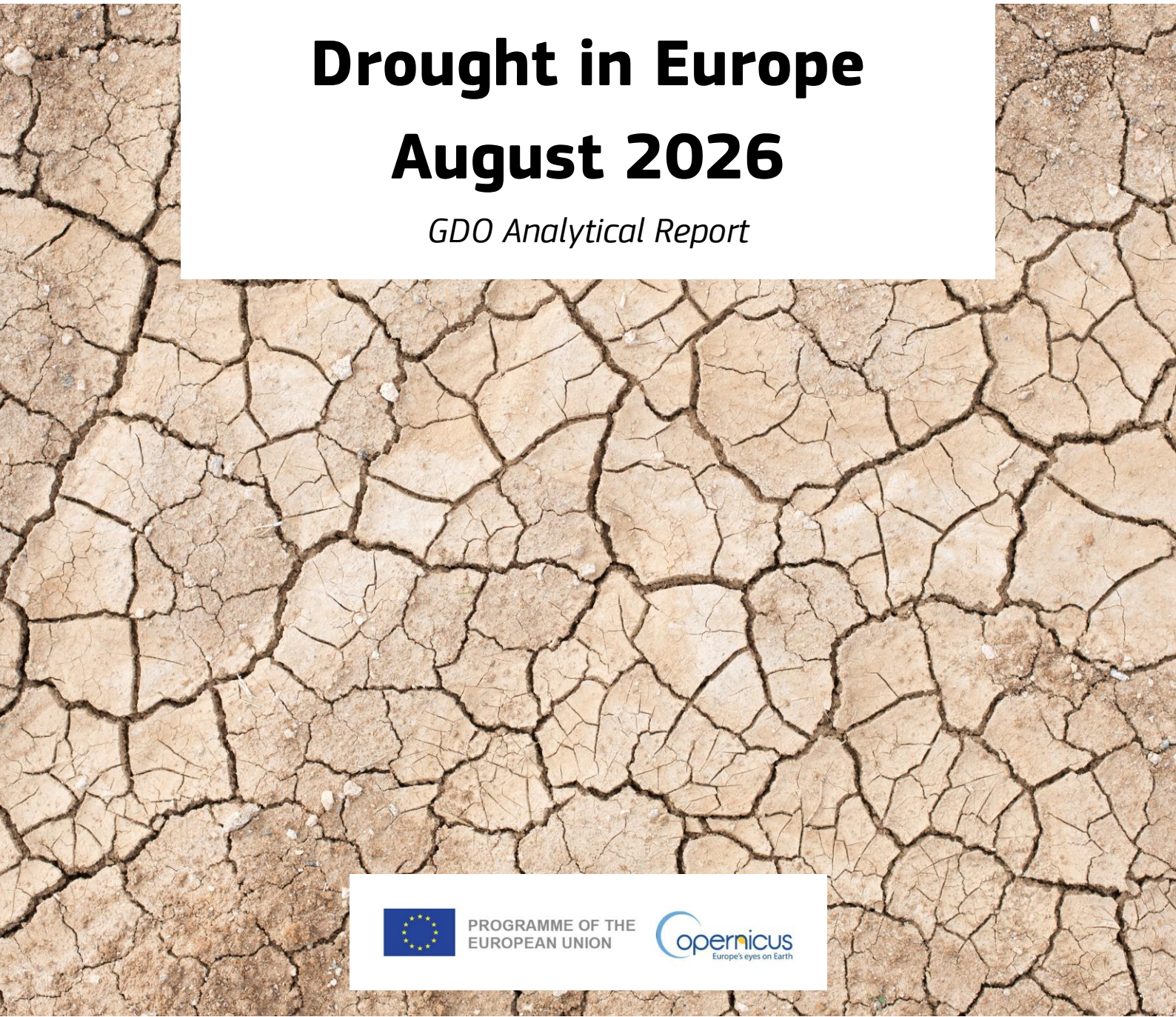
European Commission

Joint Research Centre

Drought in Europe August 2026

GDO Analytical Report



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Contents

Abstract 2

Acknowledgements 3

Authors 3

1. Introduction 4

2. Combined Drought Indicator (CDI) 6

3. Standardized Precipitation Index (SPI) 8

4. Temperature 9

5. Standardized Precipitation Evapotranspiration Index (SPEI) 13

6. Soil moisture 14

7. Hydrology 15

8. Vegetation 16

9. Wildfires 17

10. Seasonal forecast 21

11. Reported impacts 24

11.1. Agriculture 24

11.2. Energy systems and electricity markets 25

11.3. Human health and emergency heatwave response 25

11.4. Hydrology and water resources 26

11.5. Ecosystems 28

List of abbreviations and definitions 29

List of figures 31

List of tables 32

Abstract

Stable and critical drought conditions are detected in most of central Europe in late August 2026. Alert conditions are still identified in central-eastern and western Europe. Warning drought conditions remain generally stable and critical in Europe.

Scarce precipitation is the main driver of the current drought 2026, with severe and prolonged deficit observed in eastern and central Europe. Key compounding factors have been the observed temperature anomalies, much warmer than average over central-western Europe, and the extreme sequence of heatwaves that has been affecting large areas of Europe since May.

Soil moisture and river flow are extensively far below normal. Heat and water stresses have been affecting vegetation and crops, industrial water supply and river transport. Impacts on crop yields are well visible by satellite imagery and heavy yield losses are expected.

In the next months, warmer and normal-to-slightly wetter conditions are predicted in most of Europe. A certain degree of uncertainty characterizes the current seasonal precipitation prediction.

Acknowledgements

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1. Introduction

The Copernicus Emergency Management Service (CEMS)[1], implemented by the European Commission's Joint Research Centre, provides timely and accurate geospatial information on ongoing and forecasted natural hazards and man-made disasters to support decision making and actions. Its products and services support emergency response and disaster management activities, helping to reduce risks and mitigate the impact of disasters and saving lives. CEMS has three components: early warning and monitoring; on-demand mapping; exposure mapping. The early warning and monitoring component focuses on floods, drought, and wildfire.

The European and Global Drought Observatories[2] (EDO and GDO) of CEMS provide drought forecasting and monitoring information, analysis tools and analytical reports. The Observatories aim at detecting, monitoring, and predicting droughts by using a suite of indices and indicators characterising different aspects and phases of drought. In addition, EDO and GDO provide monitoring information and forecasts of warm spells, heatwaves and cold spells. In addition, JRC runs the Anomaly Hotspots of Agriculture system that provides warnings on agricultural drought affecting crops and rangelands[3].

Drought is likely the most complex climate-related natural hazard, due to its spatio-temporal evolution, its cascading impacts on all socio-economic sectors (including agriculture, public water supply, energy production, transportation, tourism), human health, biodiversity, and natural systems. Drought is a climate extreme characterised by an imbalance in the hydrological cycle. It is due to a deficit in precipitation, that accumulates over time, often compounded by warm spells and heatwaves. It is influenced by land and water use and management. Drought can occur on multiple time scales, from a few weeks to several years, affecting large areas and populations worldwide. The related impacts are both direct and indirect and can persist after its end. Depending on the effect in the hydrological cycle and the impacts on society and environment, different drought phases are commonly distinguished:

1. meteorological drought, characterised by a substantial deficit in precipitation. The deficit is defined with respect to the long-term climatology;
2. agricultural drought, characterised by reduced soil moisture that results from below-average precipitation often compounded by warmer conditions and/or heatwaves;
3. hydrological drought, that occurs when river streamflow and water storages in aquifers, lakes, and reservoirs fall below long-term mean levels.

Due to its complexity, drought monitoring relies on a set of different indices and indicators, representing different components of the hydrological cycle (e.g. precipitation, temperature, soil moisture, reservoir levels, river flow, and groundwater levels), as well as specific impacts (e.g. vegetation stress).

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1 https://emergency.copernicus.eu/

2 https://drought.emergency.copernicus.eu/

3 https://agricultural-production-hotspots.ec.europa.eu/

All details of drought indices and indicators used in the Copernicus Drought Observatories are available in the associated factsheets[4] and in the JRC Data Catalogue[5].

This study is part of a series of analytical reports focused on the analysis of drought events affecting Europe as well as the other regions of the world. These studies build on data and information retrieved and processed by the Copernicus Drought Observatories. The information derived from the Observatories is usually complemented with additional sections on impacts, large-scale circulation, and other relevant factors.

4 https://drought.emergency.copernicus.eu/data/factsheet

5 https://data.jrc.ec.europa.eu/collection/drought

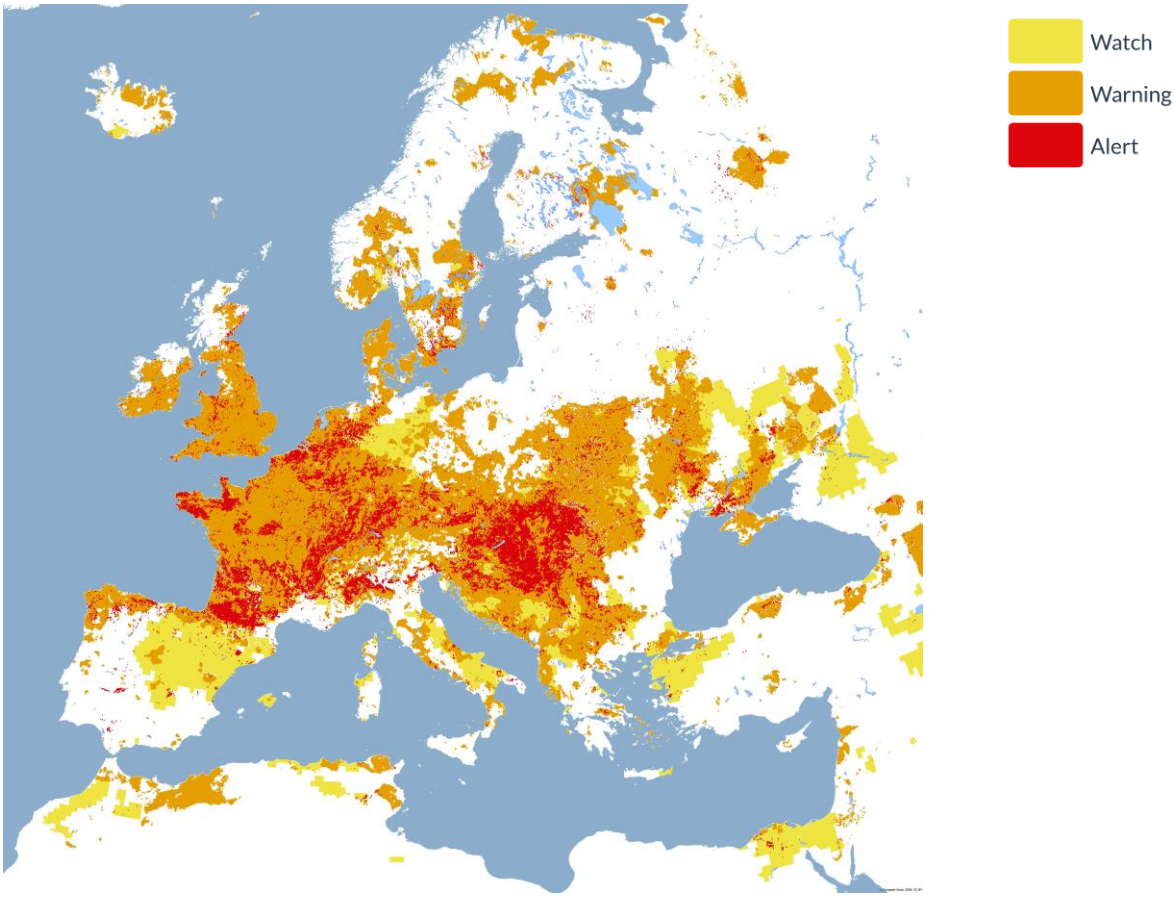
2. Combined Drought Indicator (CDI)

The Combined Drought Indicator is used to identify the different phases of droughts and their extent, with a particular focus on vegetated areas (areas at risk of drought, areas where the vegetation has already been affected and areas where the vegetation is recovering). To this purpose, the CDI integrates three complementary indicators: the Standardized Precipitation Index (SPI), the Soil Moisture Index Anomaly (SMA) and the Fraction of Absorbed Photosynthetically Active Radiation (fAPAR) anomaly.

In late August, drought conditions remained stable and critical in most of Europe, showing some limited improvement over western Europe. According to the Combined Drought Indicator for late August 2026 (Figure 1), alert conditions persisted in France, Belgium, the Netherlands, Luxemburg, central and southern Germany, northern Italy, large parts of the Danube river basin, the northern Balkans, and some spots in the northern Iberian Peninsula and eastern Ukraine. Warning conditions persisted in France, most of Germany, Belgium, the Netherlands, the UK, Ireland, the Alps, northern and central Italy, the northern Iberian Peninsula, the Balkans, some regions of Scandinavia, and central-eastern Europe[6]. Watch conditions partially recovered in the western Iberian Peninsula, while they persisted in the north-eastern Iberian Peninsula, northern Germany, central-southern Italy, the Balkans, and eastern Europe. Normal conditions are estimated in some areas of northern-eastern Europe, in the southern part of the Iberian Peninsula, in the northernmost regions of Ireland and the UK, in most of Türkiye, and locally in some central-southern regions of Italy.

[6] Due to known issues (currently under investigation) that affect the estimated soil moisture, the CDI map may be less reliable in some regions, particularly western Russia. Users may consult the Standardized Precipitation Index (SPI) and the Standardized Precipitation Evapotranspiration Index (SPEI), available at the European or Global Drought Observatory (EDO/GDO).

Figure 1. The Combined Drought Indicator (CDI), based on a combination of indicators of precipitation, soil moisture, and vegetation conditions, in late August 2026.



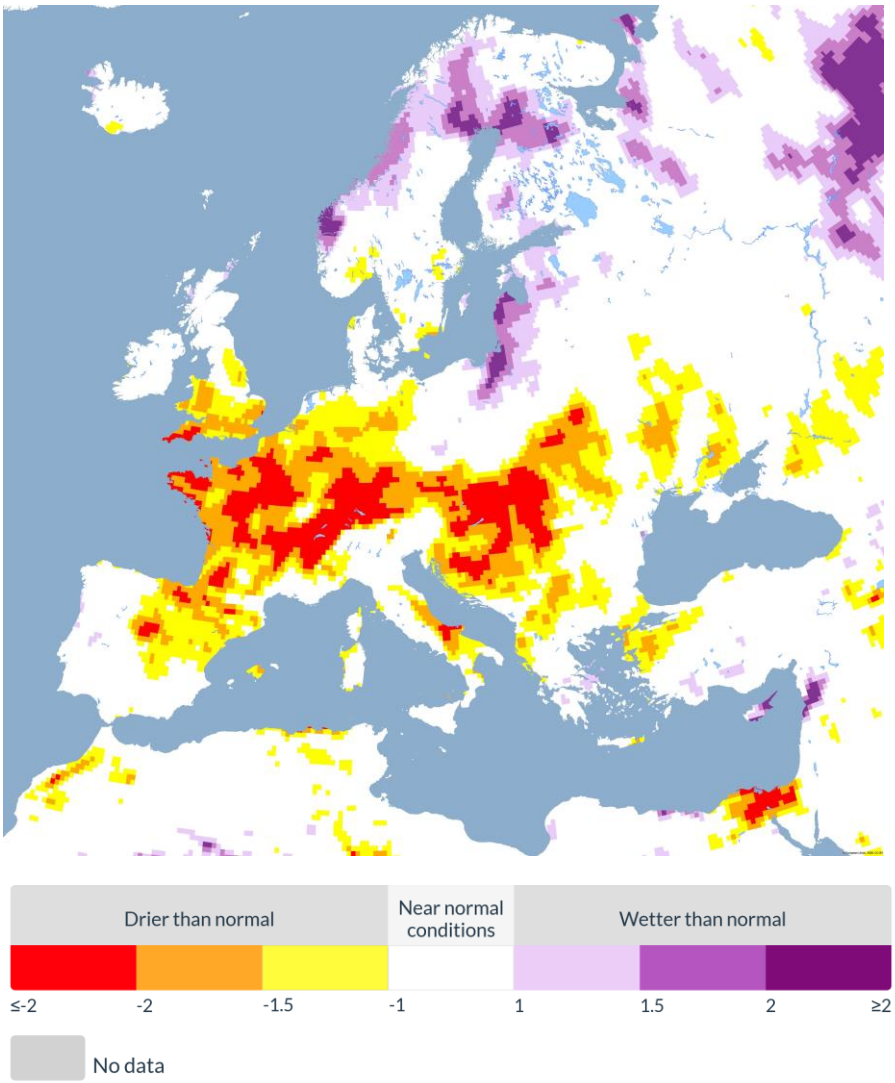
Source: JRC, Copernicus EMS European Drought Observatory.

3. Standardized Precipitation Index (SPI)

The SPI provides information on the intensity of the precipitation deficit (or surplus) over a defined accumulation period (e.g. from 1 to 48 months). The lower (i.e. more negative) the SPI, the more intense is the drought. SPI can be computed for different accumulation periods. The 3-month period is often used to evaluate agricultural drought and the 12-month (and longer) period for hydrological drought, when rivers fall dry and groundwater tables are affected.

The SPI for Europe at the 3-month accumulation period shows that most of central Europe, the southwestern UK, the Alps, the Balkans, central-eastern Europe, some areas of southeastern Italy, and the north-eastern Iberian Peninsula have been affected by a severe and prolonged lack of precipitation, hitting in particular southern Germany, the Alps, most of France, and most of the upper and medium Danube river basin (Figure 2).

Figure 2. SPI-3 in late August 2026.

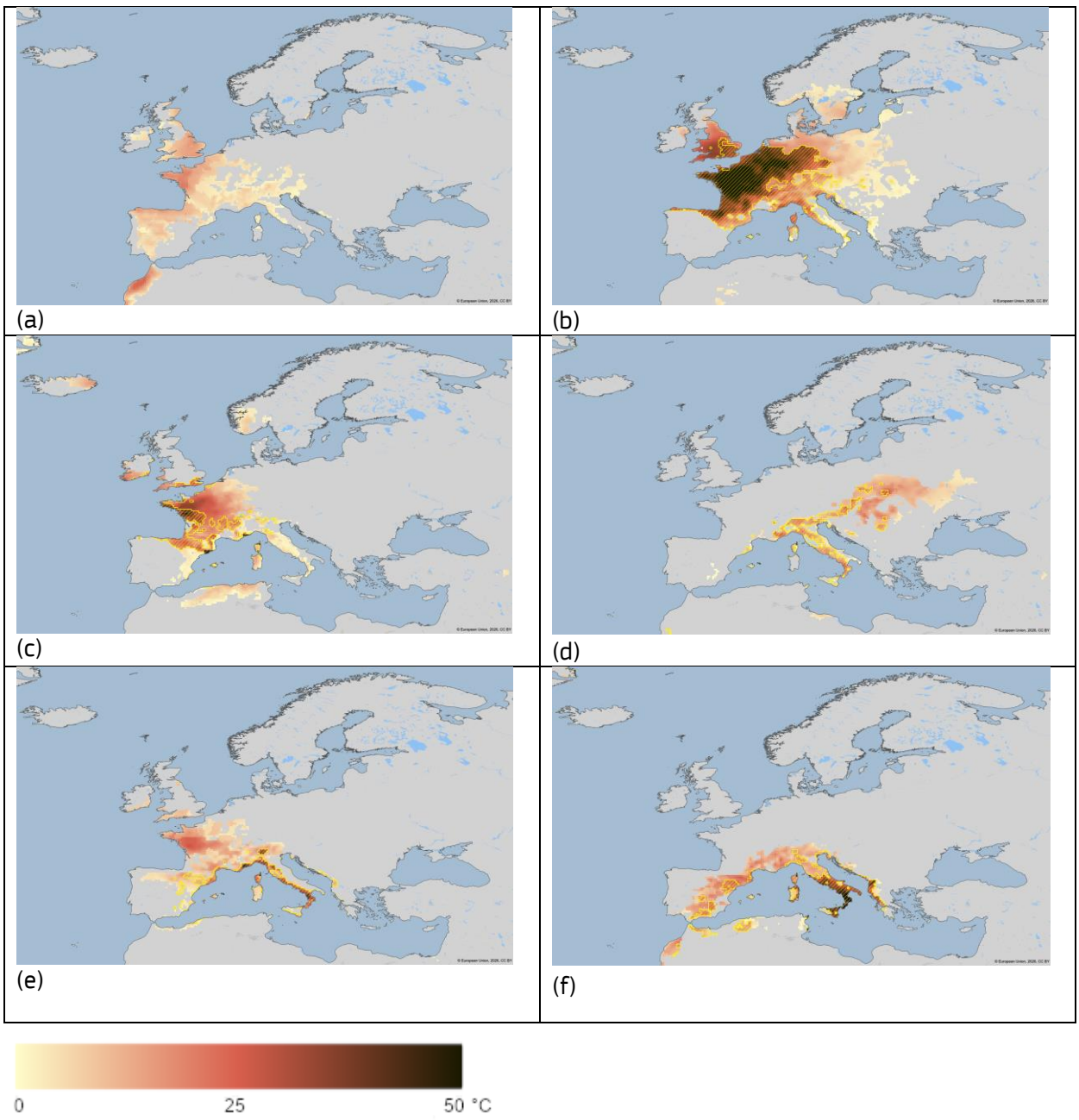


Source: JRC, Copernicus EMS European Drought Observatory, based on ERA5 (ECMWF, European Centre for Medium-Range Weather Forecasts, Reanalysis v5).

4. Temperature

According to the maps of heatwave intensity (Figure 3), showing the estimated conditions at the peak of the events from May to September 2026, an extreme sequence of heatwaves hit large areas of Europe, especially in Italy, France, Germany, the Alps, the Pyrenees, the Iberian Peninsula, the Mediterranean, the UK, and central-eastern Europe.

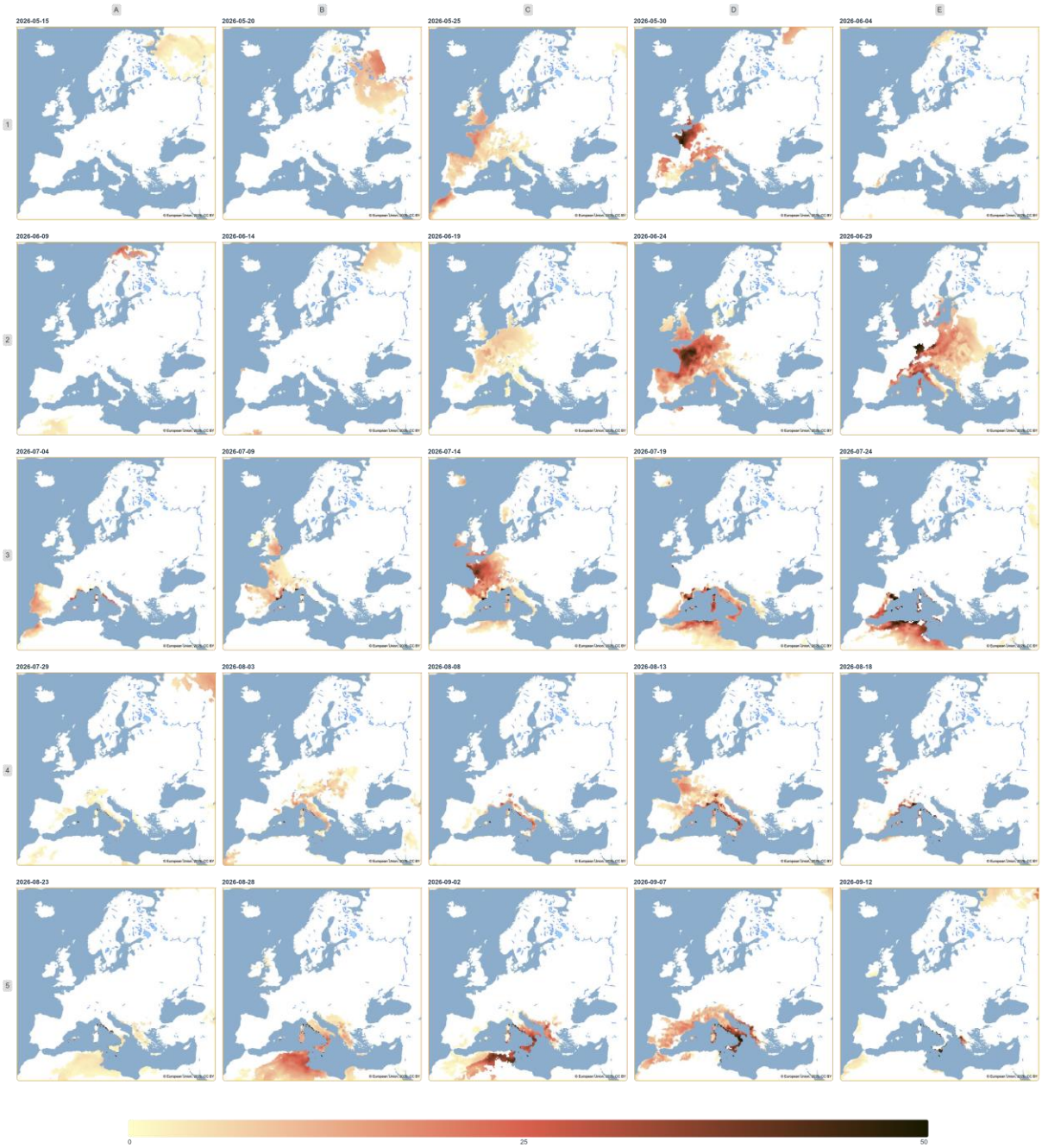
Figure 3. Accumulated heatwave intensity estimated until: 25 May (a), 27 June (b), 14 July (c), 6 August (d), 14 August (e), and 8 September(f). Values are in degrees Celsius (°C). Yellow contours highlight the areas with a heatwave duration of at least 7 days.



Source: JRC, Copernicus EMS European Drought Observatory, based on ERA5 and Destination Earth Extreme Digital Twin.

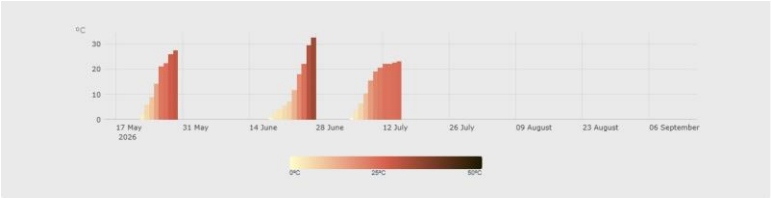
The evolution of the May-September heatwaves (Figure 4) provides information on the accumulated intensity over time as well as the spatial extent of the events beyond their peaks. Some examples of this temporal evolution, that make possible to appreciate the severity of the events, are shown in Figure 5 reporting the estimated accumulated intensity over time in a few selected locations.

Figure 4. Evolution of the identified heatwaves. The maps show the accumulated heatwave intensity, from 15 May to 12 September 2026, in degrees Celsius (°C).

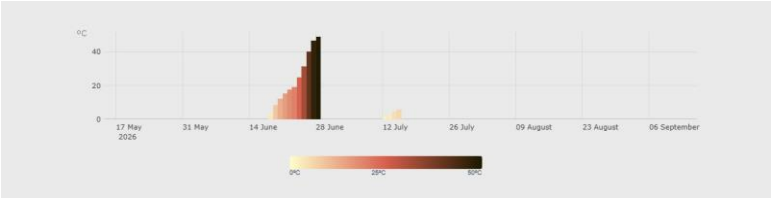


Source: JRC, Copernicus EMS European Drought Observatory, based on ERA5 and Destination Earth Extreme Digital Twin.

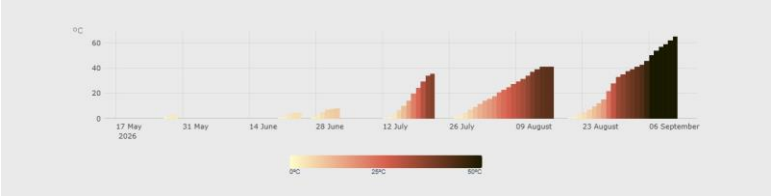
Figure 5. Heatwave temporal evolution in a few hot spots of the events in: the UK (a), eastern Netherlands (b), western Germany (c), central France (d), northern Spain (e), southern Hungary (f), eastern Czechia (g), the Italian Alps (h), southern Italy (i). Values represent the accumulated heatwave intensity of the events detected from 15 May until 12 September 2026, in degrees Celsius (°C).



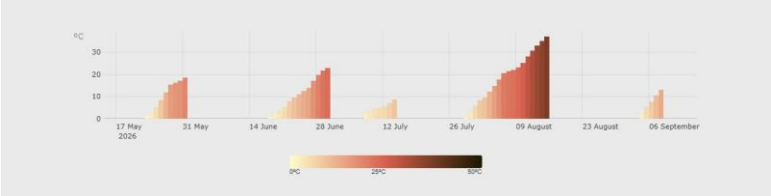
(a)



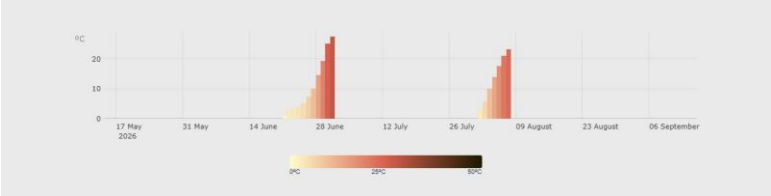
(b)



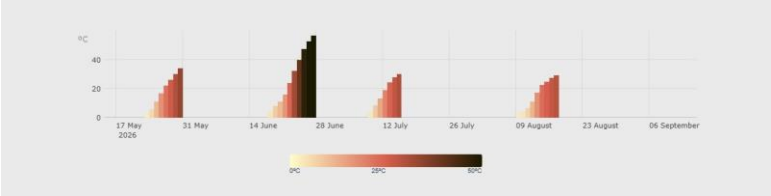
(c)



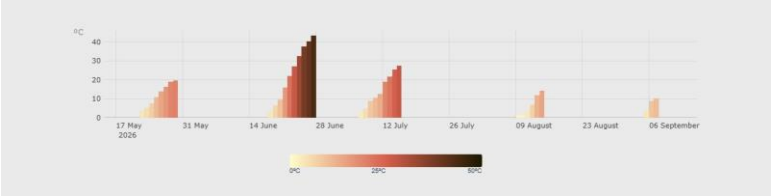
(d)



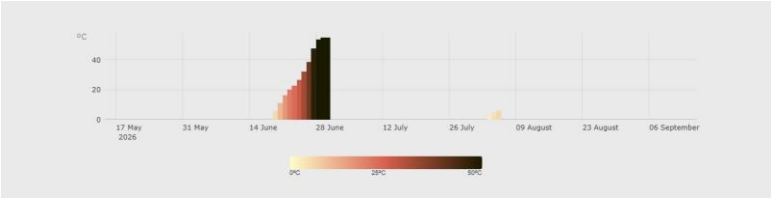
(e)



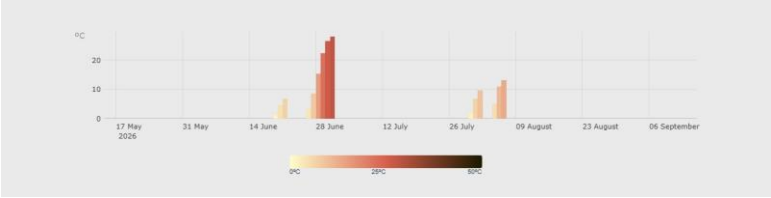
(f)



(g)



(h)



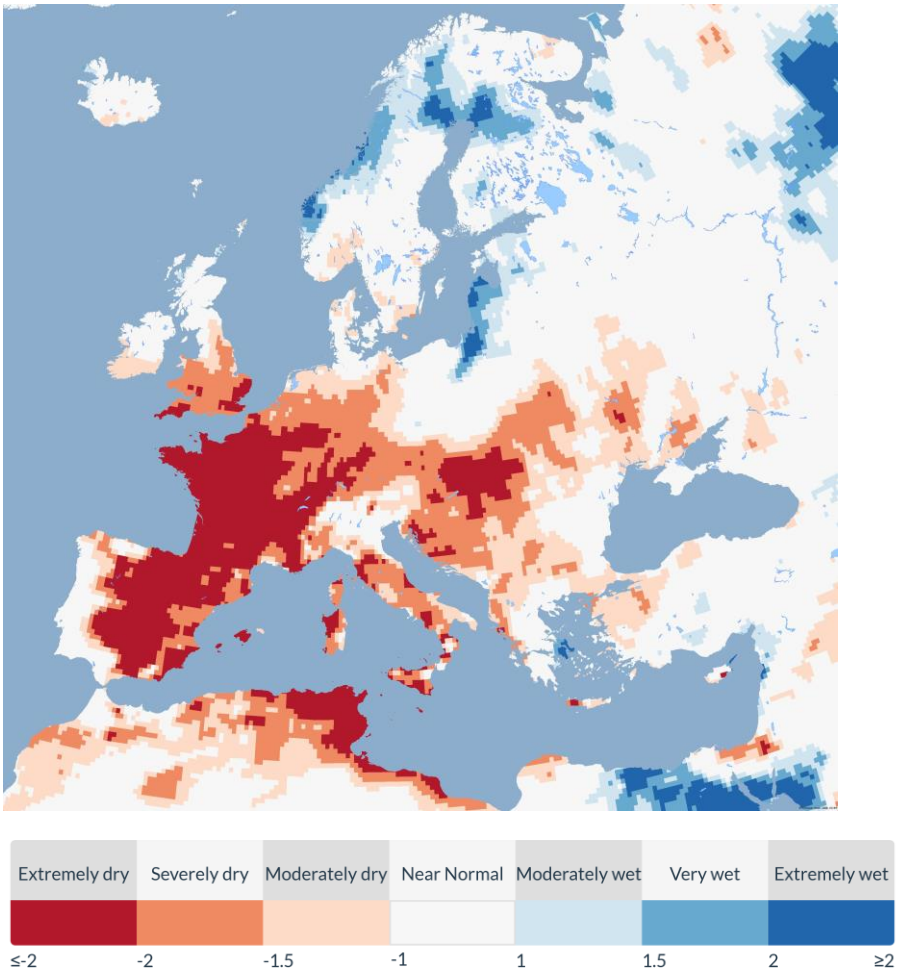
(i)

Source: JRC, Copernicus EMS European Drought Observatory, based on ERA5 and Destination Earth Extreme Digital Twin.

5. Standardized Precipitation Evapotranspiration Index (SPEI)

SPEI accounts for both precipitation and evapotranspiration (potential evapotranspiration, PET, is here computed with the Hargreaves-Samani[7] method) to estimate anomalies of the climatic water balance (precipitation minus potential evapotranspiration) with respect to the climatological average over a given period. Thus, SPEI provides an estimation of the combined effects of precipitation deficit (based on ERA5 data like the previously discussed SPI) and warmer-than-usual conditions and/or heatwaves. The SPEI, shown in Figure 6, confirms the prolonged drought over the areas identified and discussed in the previous sections. SPEI-3 well aligns with the corresponding SPI-3, confirming that the current drought is precipitation-driven and exacerbated by warmer temperature anomalies and heatwaves. In the Iberian Peninsula the effect of warmer temperature anomalies is much more pronounced.

Figure 6. SPEI-3 in late August 2026.



Source: JRC, Copernicus EMS European Drought Observatory, based on ERA5.

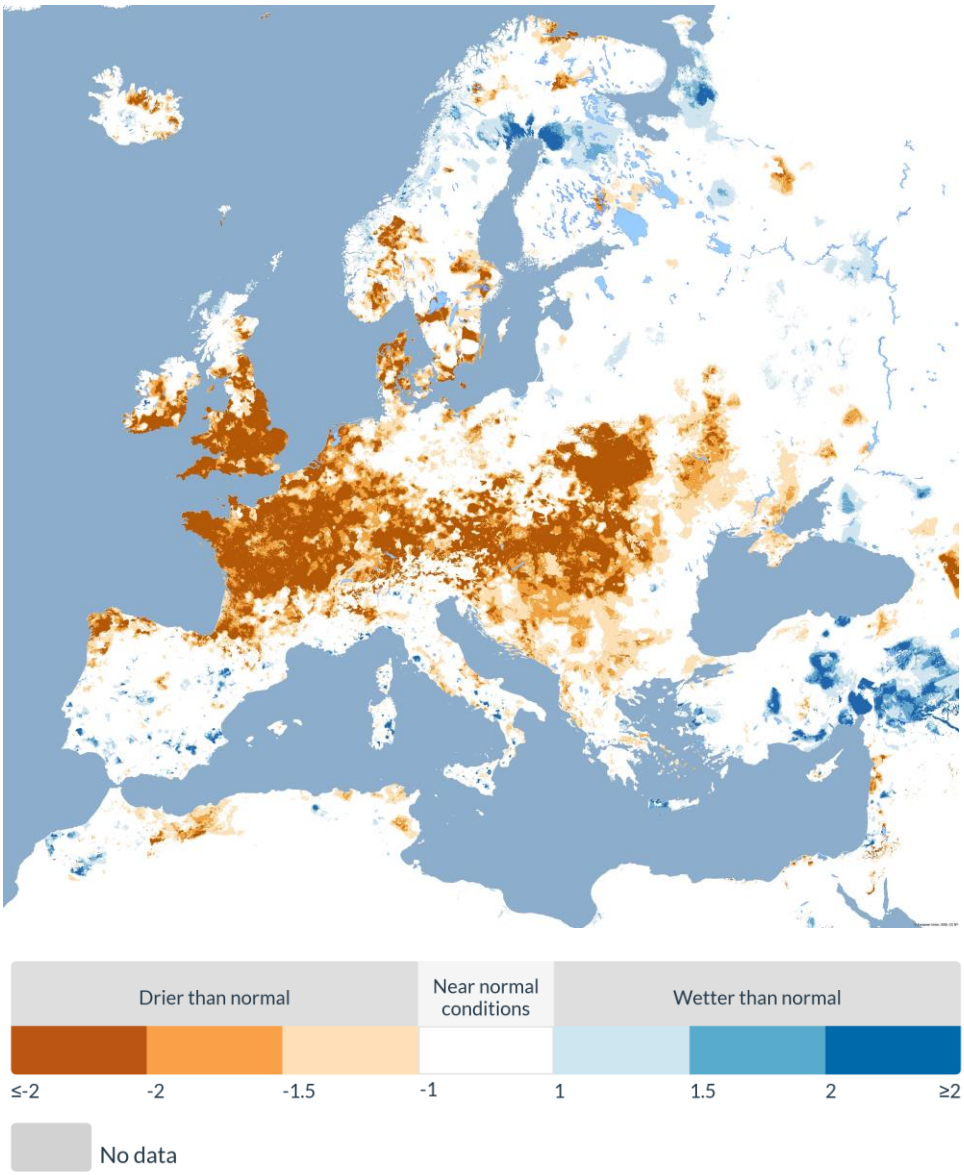
[7] See Hargreaves, G. H. and Samani, Z. A.: Estimating potential evapotranspiration, J. Irrig. Drain E.-ASCE, 108, 223–230, 1982 and Hargreaves, G. H. and Samani, Z. A. 1985. Reference crop evapotranspiration from ambient air temperature, American Society of Agricultural Engineers.

6. Soil moisture

The Soil Moisture Index Anomaly (SMA) is a standardised index that estimates deviations from normal conditions of the root-zone water content. It is an index derived from a hydrological model (OS LISFLOOD) and associated with the difficulty of plants in extracting water from the soil.

The Soil Moisture Index Anomaly shows negative anomalies over most of central Europe, the southern and eastern UK, southern Ireland, the northern Iberian Peninsula, the Alps, and eastern Europe. Less severe anomalies affect some areas in Scandinavia and central-northern Italy (Figure 7).

Figure 7. Soil Moisture Index Anomaly, late August 2026.



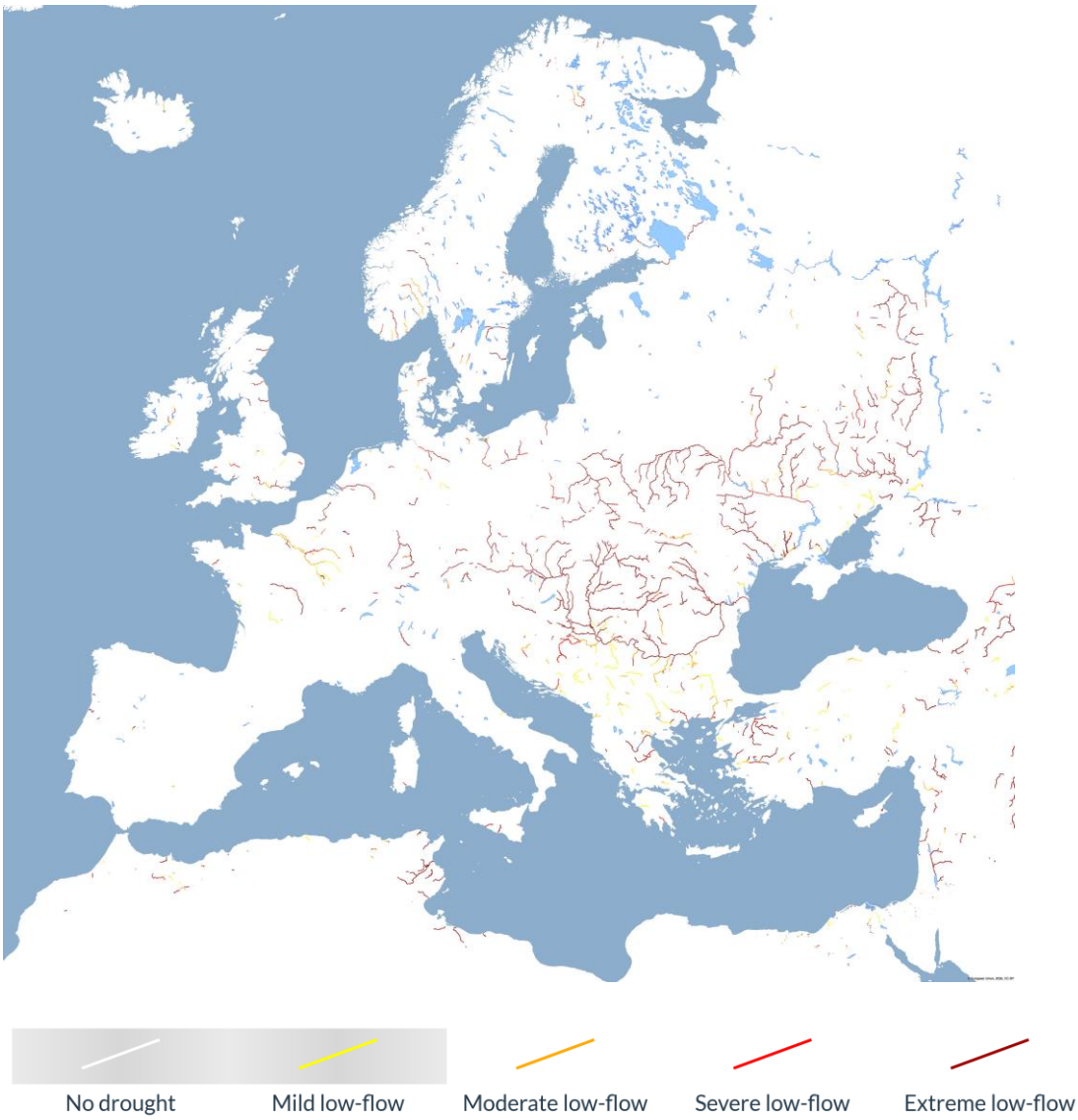
Source: JRC, Copernicus EMS European Drought Observatory, based on the OS LISFLOOD hydrological model.

7. Hydrology

The Low-Flow Index (LFI) is a metric used to assess hydrological drought, based on the OS LISFLOOD hydrological model. It identifies consecutive periods of exceptionally low streamflow. By comparing the resulting water deficit during these periods to historical climatological conditions, the LFI enables the estimation of drought severity.

In late August 2026, the Low-Flow Index shows critical hazard values over some rivers in central Europe and most of central-eastern Europe, spanning from north-eastern France to western Russia, including the Alps and the Danube regions. Some rivers in the UK are affected as well (Figure 8). The flow reduction correlates well with the soil moisture anomaly pattern and the lack of precipitation over the last months.

Figure 8. Low-Flow Index (LFI) in late August 2026.



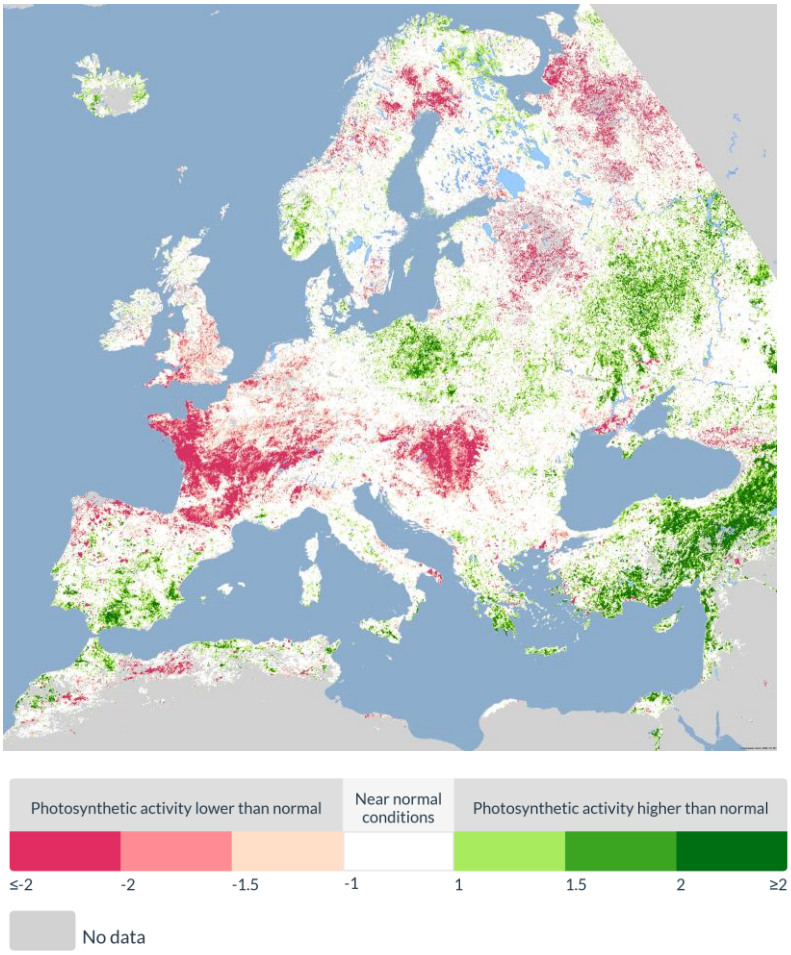
Source: JRC, Copernicus EMS European Drought Observatory, based on the OS LISFLOOD hydrological model.

8. Vegetation

The satellite-based fraction of Absorbed Photosynthetically Active Radiation (fAPAR) represents the fraction of solar energy absorbed by leaves due to photosynthesis. It is a measure of vegetation health and biomass. Negative fAPAR anomalies with respect to the long-term average are associated with a reduction in biomass and often with negative impacts on vegetation.

In late August 2026, the satellite-derived fAPAR anomaly indicator shows below-average vegetation conditions mainly across most of France, northern Italy, central Europe, Hungary, western Romania, northern Serbia, central Scandinavia, and northeastern Europe (Figure 9).

Figure 9. VIIRS (Visible Infrared Imaging Radiometer Suite) satellite-derived fAPAR anomalies in late August 2026.

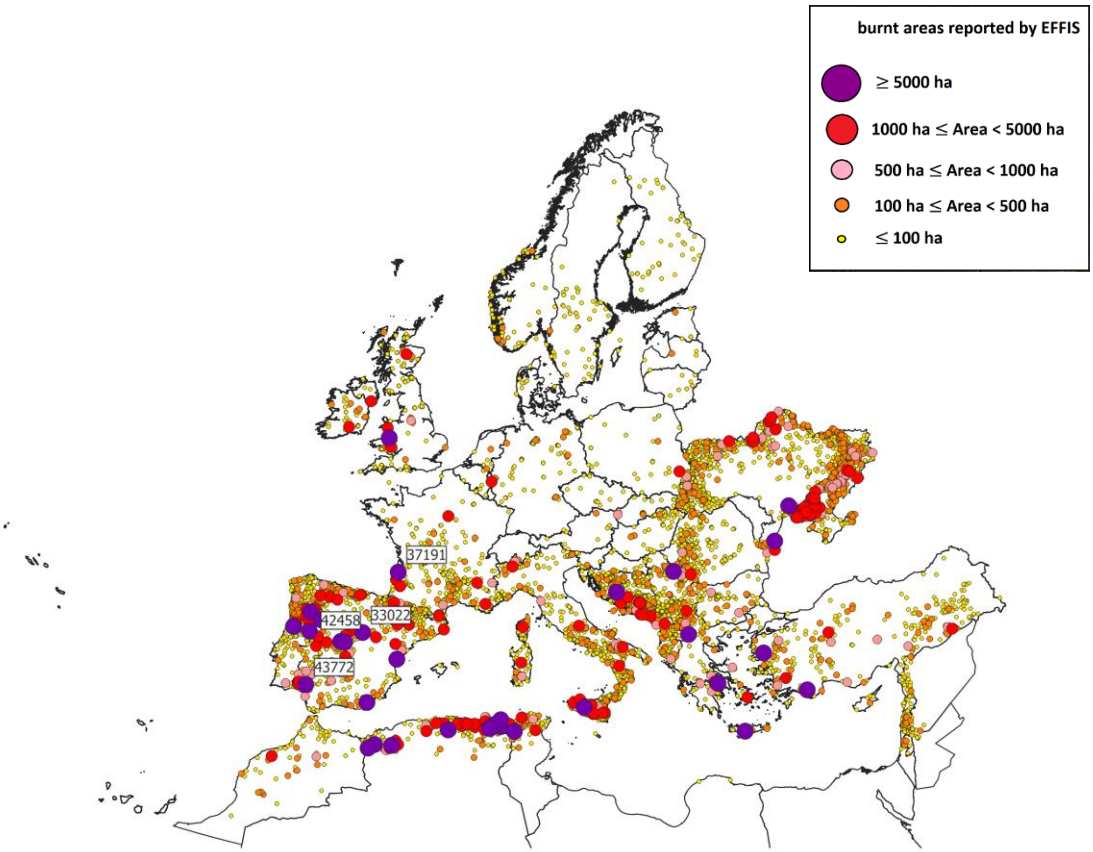


Source: JRC, Copernicus EMS European Drought Observatory, based on VIIRS.

9. Wildfires

Most of the fire events reported by the Copernicus European Forest Fire Information System (EFFIS) during the first part of the year (up to 31 August) affected the Mediterranean areas. The major fire events in terms of burnt areas took place in Portugal, Spain, France, Italy, Greece, Turkey and northern African countries (Figure 10), but noticeable events were recorded also in central and northern European countries, like a wildfire in Belgium ravaging a natural reserve in the Ardennes mountains.

Figure 10. Fire events recorded by EFFIS in 2026 (up to 31 August).



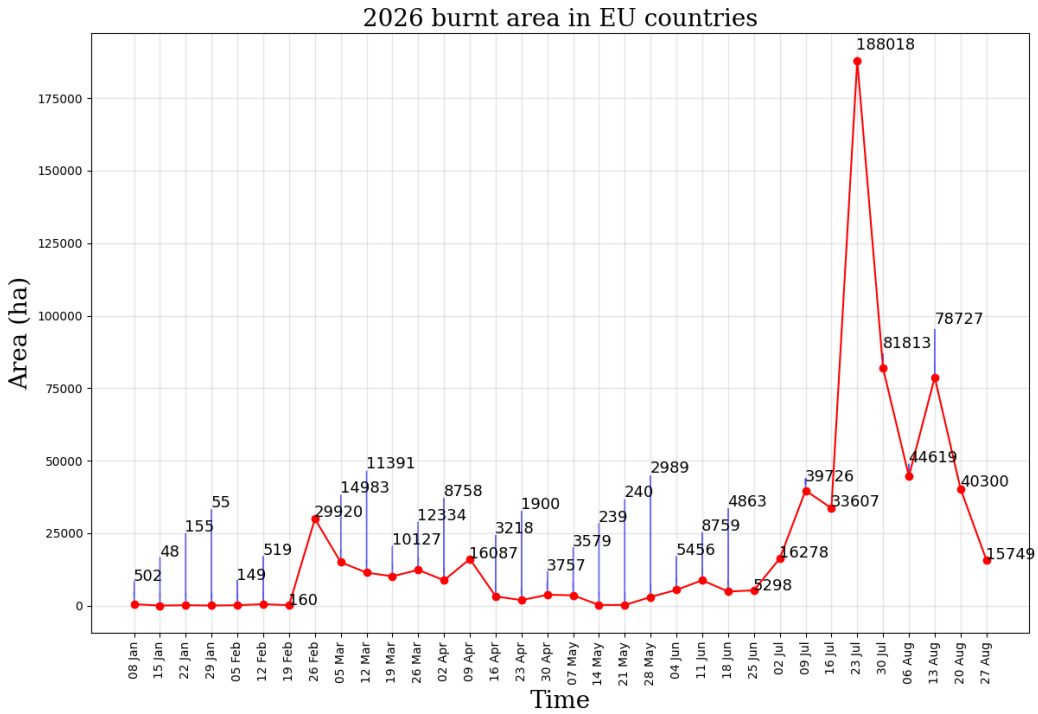
Source: JRC, EFFIS (European Forest Fire Information System).

In the EU countries, four main phases characterised the year so far:

- 1 January – 19 February
- 19 February – 16 April
- 16 April – 25 June
- 25 June – 31 August

After a very quiet beginning of the year, from the last week of February until the first half of April major fires took place mainly in the Iberian Peninsula and in eastern European countries (Figure 11, Figure 12). Two events over 5 000 ha were recorded: the biggest one in the UK near Manchester, which impacted over 6 000 ha, and the second one in the Ukrainian side of the Danube delta (Figure 12).

Figure 11. Weekly progression of burnt areas in EU countries in 2026.

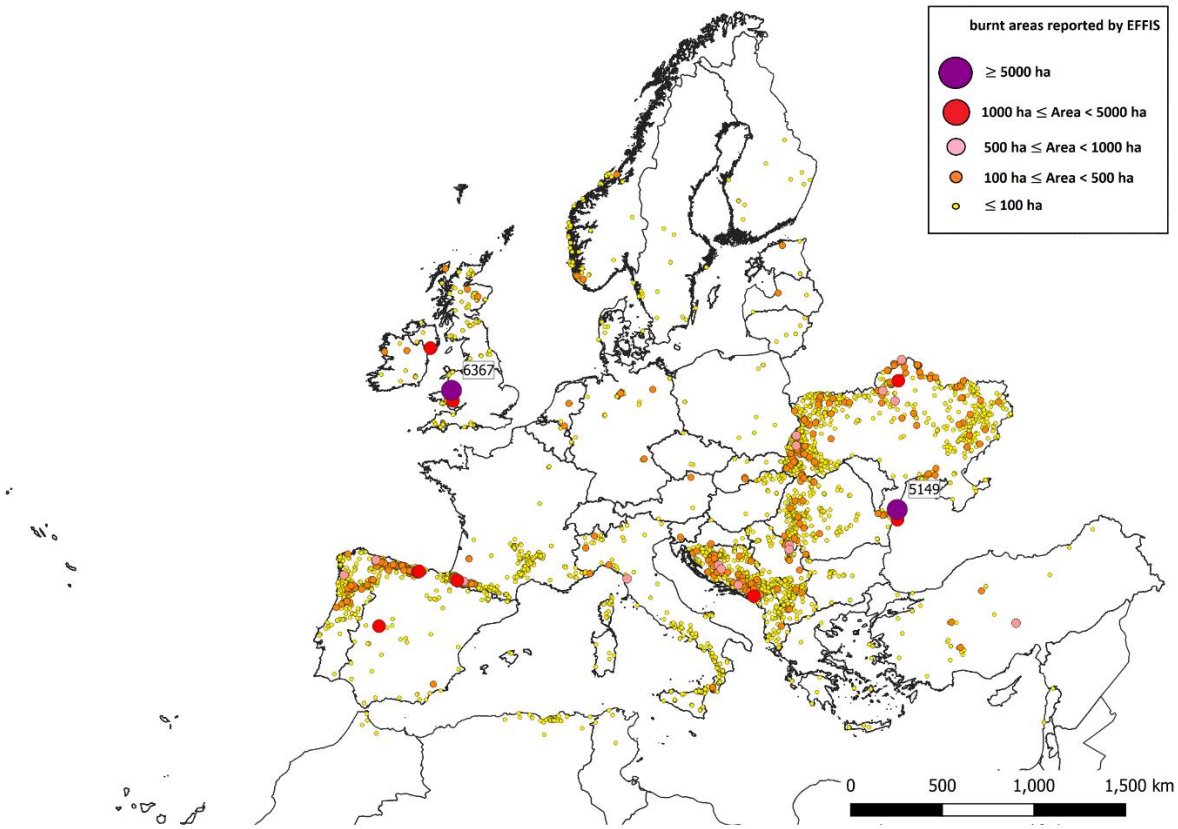


Source: JRC, EFFIS (European Forest Fire Information System).

The second halves of both April and May were also quiet in terms of wildfires, but since the second half of June, EFFIS recorded an increase of activity that culminated in the maximum weekly amount of the year reaching around 188 018 ha of burnt area (Figure 11). In this last stretch of time the Mediterranean part was the most hit, both in terms of number of events and burnt area (Figure 12), but also noticeable events took place in central and northern Europe.

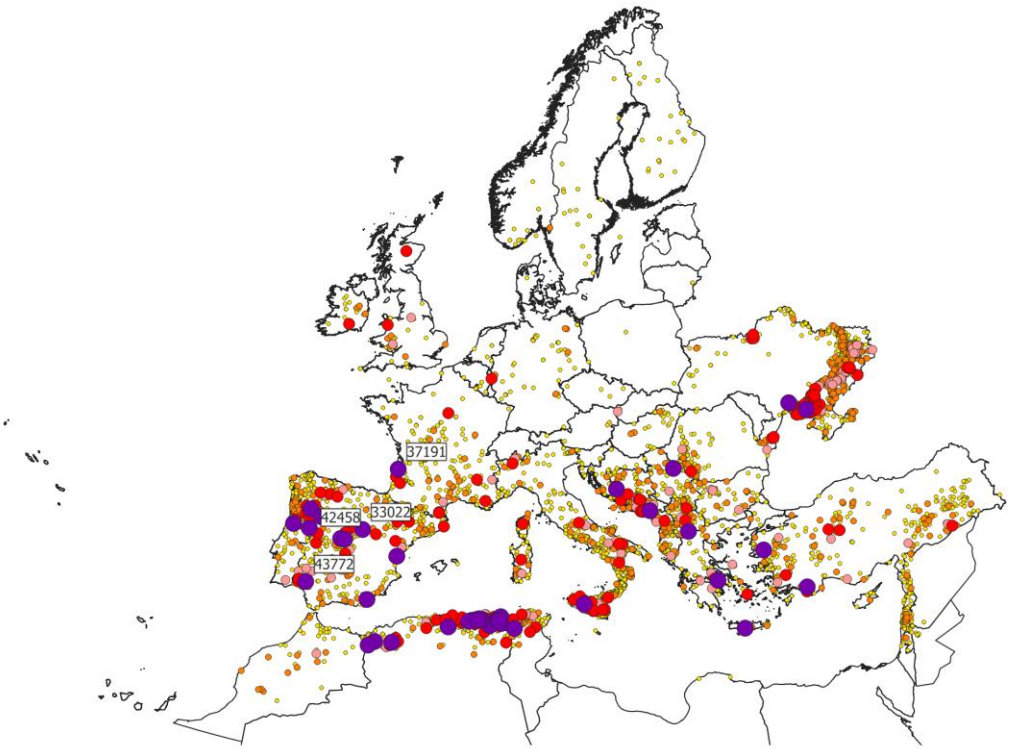
The number of fire events steadily increased in June and reached the year's maximum in July (Figure 11, Figure 13). The fires affected mainly the Mediterranean region, but severe events took place also in central (around 37 000 ha near Bordeaux) and northern (1 300 ha near Paris) France, Belgium (2 672 ha), the UK and Ukraine (Figure 13). July and August were particularly severe in the Iberian Peninsula, where an aggregate of around 321 000 ha burnt during those two months. Several fire events hit Spain, the two biggest ones burning over 40 000 ha each in Andalusia and Castilla y Leon regions. These two fire events were also the two biggest recorded in the whole EFFIS area of interest for the year 2026 (up to 31 August).

Figure 12. Location and magnitude of the fire events recorded by EFFIS from January to May.



Source: JRC, EFFIS (European Forest Fire Information System).

Figure 13. Location and magnitude of the fire events recorded by EFFIS from 1 June to 31 August.



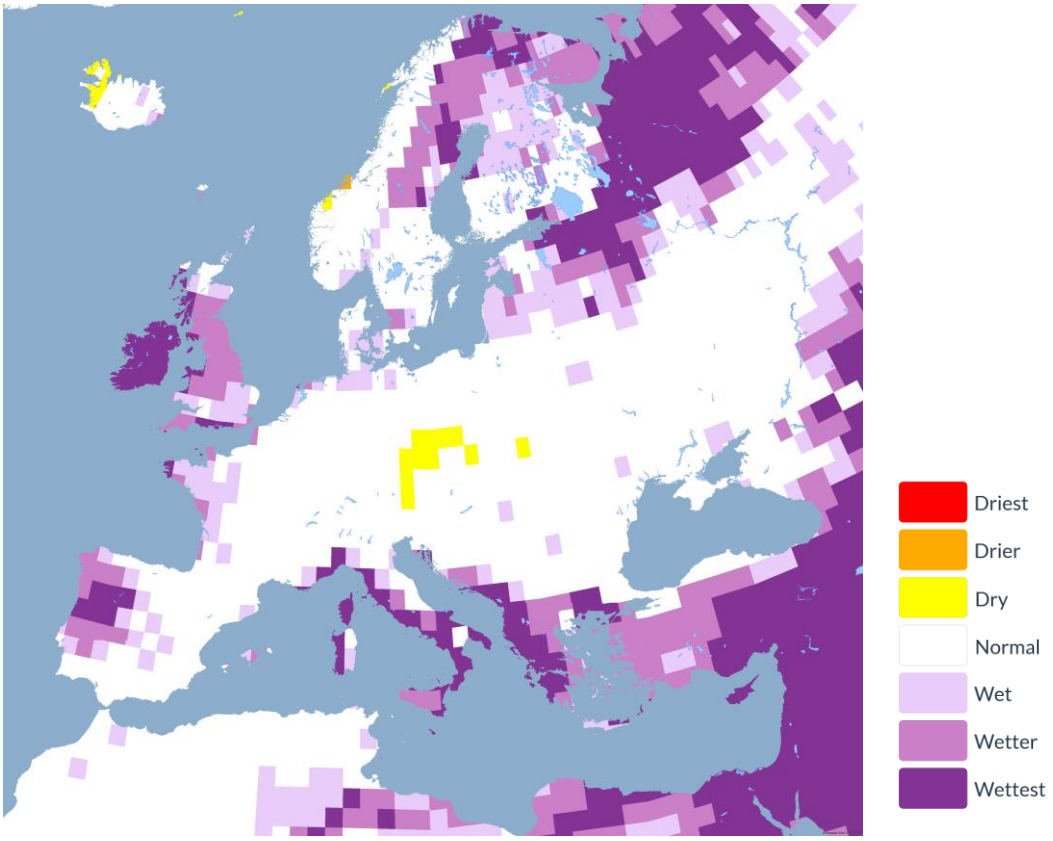
Source: JRC, EFFIS (European Forest Fire Information System).

10. Seasonal forecast

The Multi-system Indicator for Forecasting Unusually Wet and Dry Conditions provides early risk information at global scale. The indicator is computed from forecasted SPI-1, SPI-3, and SPI-6 derived from eight modelling systems: ECMWF (European Centre for Medium-Range Weather Forecasts), CMCC (Centro Euro-Mediterraneo sui Cambiamenti Climatici), DWD (Deutscher Wetterdienst), ECCC (Environment and Climate Change Canada), Météo France, NCEP (USA National Centers for Environmental Prediction), UKMO (UK Meteorological Office), BOM (Bureau of Meteorology, Australia).

Close-to-average conditions are forecasted for the next months (till November 2026) by the multi-system ensemble (Figure 14) over large areas in central-eastern Europe. Slightly drier than average conditions are predicted only for Czechia and northern Austria. On the contrary, the Mediterranean region, the western Iberian Peninsula, the UK, Ireland, the Baltic Seas regions, and northern Scandinavia may experience significantly wetter conditions than usual.

Figure 14. Multi-system Indicator for Forecasting Unusually Wet and Dry Conditions, September - November 2026, based on dynamic forecasting systems from 8 centres, issued in August 2026: ECMWF, CMCC, DWD, ECCC, Météo France, NCEP, UKMO, BOM. The baseline period is 1993-2016.

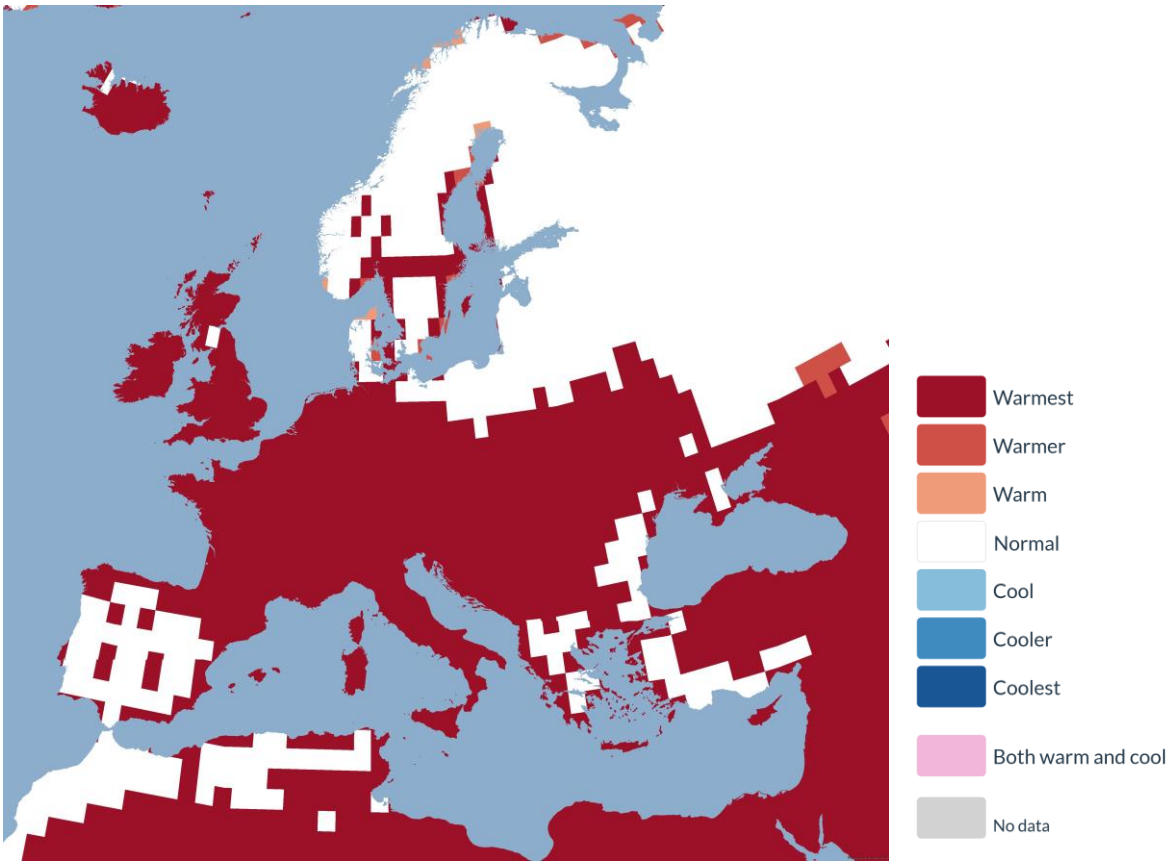


Source: JRC, Copernicus EMS European Drought Observatory, based on ECMWF, CMCC, DWD, ECCC, Météo France, NCEP, UKMO, BOM.

The individual forecasting systems (not shown here) show good agreement, but a few models differ in central-eastern Europe with more pronounced dry anomalies, pointing to some forecast uncertainty.

The Multi-system Indicator for Forecasting Unusual Warm and Cool Conditions provides early risk information at global scale, based on the eight forecasting systems mentioned before. Concerning October 2026, the ensemble points to the risk of having severe heatwaves over most of Europe (Figure 15). This will further exacerbate the current drought. Only for most of Scandinavia, most of the UK, most of the Iberian Peninsula, north-eastern Europe, and some areas in south-eastern Europe and Türkiye normal conditions are predicted.

Figure 15. Multi-system Indicator for Forecasting Unusually Warm and Cool Conditions, September 2026, based on dynamic forecasting systems from 8 centres, issued in August 2026: ECMWF, CMCC, DWD, ECCC, Météo France, NCEP, UKMO, BOM. The baseline period is 1993-2016.



Source: JRC, Copernicus EMS European Drought Observatory, based on ECMWF, CMCC, DWD, ECCC, Météo France, NCEP, UKMO, BOM.

Based on the Copernicus Climate Change Service (C3S) seasonal forecasts[8] (not shown here), warmer than usual conditions with slightly wetter than usual anomalies are predicted in Europe up to December 2026, with some relevant differences among the models pointing to a discrete uncertainty in terms of precipitation predictions.

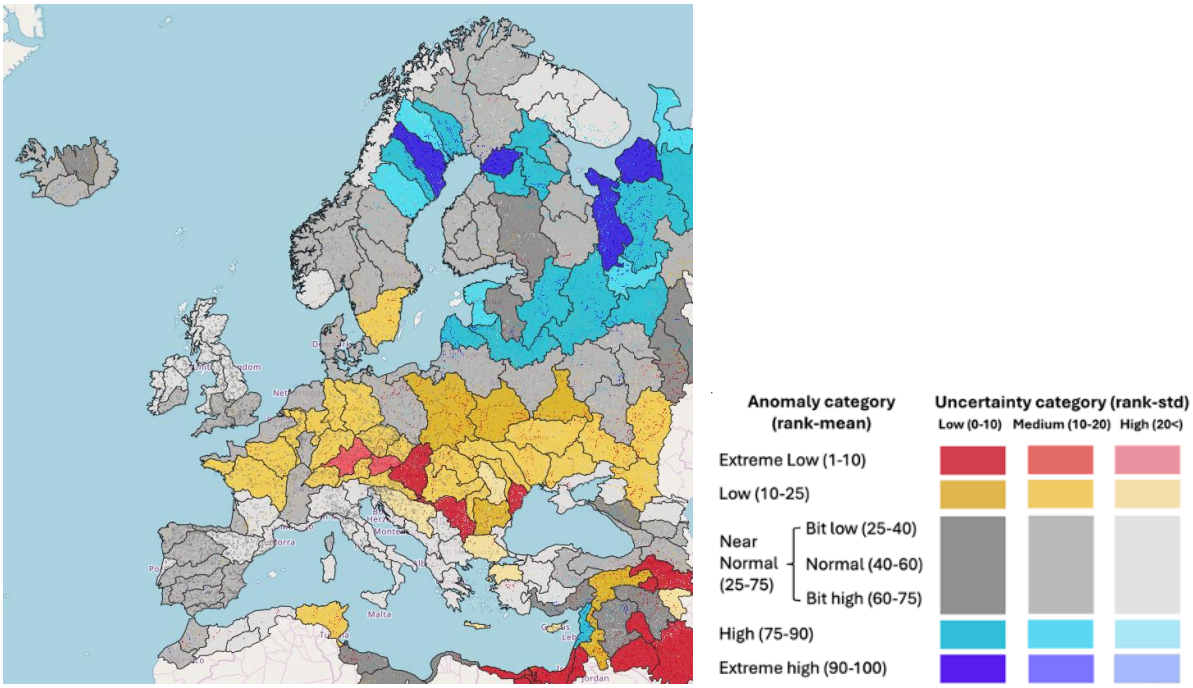
Concerning October 2026, river flow forecasts from the European Flood Awareness System (EFAS[9], Figure 16) indicate low to extremely low discharges across many catchments in France, Germany,

8 https://climate.copernicus.eu/seasonal-forecasts

9 https://european-flood.emergency.copernicus.eu/react/map

the Alpine region, most of the Balkans, and eastern Europe, pointing to stable and critical drought conditions. Exceptions are the Iberian Peninsula, the UK, Italy, most of Greece, most of Türkiye, and Scandinavia, where normal to high flows are predicted.

Figure 16. Seasonal forecast anomaly and uncertainty for October 2026 provided by the 7-month simulation covering October 2026 to April 2027, with information aggregated by river basin. Different colours indicate the anomaly category, while the colour intensity shows the confidence level in the anomalies, with the lighter colours associated with higher uncertainty. The forecast anomaly and uncertainty signals are derived by comparing the EFAS (European Flood Awareness System) hydrological forecast driven by ECMWF SEAS5 (Seasonal Forecasting System 5) to the 99-value percentile climatology. The climatology is generated by using the ECMWF SEAS5 reforecasts over a 20-year period[10].



Source: Copernicus EMS EFAS.

[10] Source: The CEMS European Flood Awareness System (EFAS): https://www.efas.eu, documentation at EFAS sub-seasonal and seasonal forecasting - Copernicus Emergency Management Service - CEMS - ECMWF Confluence Wiki. River flow anomalies shown for 204 major basins within the EFAS domain, delineated semi-automatically against the 1 arcmin OS LISFLOOD river network and based on the hydrological model OS LISFLOOD. Colours indicate anomaly direction and colour intensity reflects ensemble confidence. Results are based on OS LISFLOOD driven by 51 ECMWF SEAS5 ensemble members (De Roo et al., 2000; https://ec-jrc.github.io/lisflood/).

11. Reported impacts

The current severe-to-extreme drought in Europe has been affecting a large part of the continent, and it has been compounded by an extreme sequence of heatwaves. As it is still ongoing, a comprehensive quantification of all the impacts is challenging. Additionally, many emerging impacts, e.g. related to ecosystems, are difficult to quantify. Here, we rely on reported impacts coming from different data sources, including media.

11.1. Agriculture

Crop yield forecasts for Europe are published monthly in the JRC MARS (Monitoring Agricultural ResourceS) Bulletins[11].

According to the latest JRC MARS Bulletins published on 24 August and 28 September[12], for the current agricultural outlook across Europe the most severely affected regions include France, southern Germany, northern and central Italy, Austria, Czechia, Slovakia, Hungary, and western Romania, where high temperatures combined with insufficient rainfall strongly impacted summer crops during flowering and yield formation. Limited irrigation water availability and usage restrictions further aggravated crop stress. Many of these regions had already been flagged in the July bulletin, and conditions have further deteriorated. Alerts remain in place for southern Ireland, northern Germany, and Denmark. Southern Poland, western Ukraine, and western Bulgaria also face persistent soil moisture deficits, though impacts so far remain limited.

Among winter cereals, harvesting is now largely complete. Yield prospects have been confirmed around the five-year average at the EU level, despite adverse conditions earlier in the season that had lowered expectations in Spain, France, Germany, Austria, Czechia, Slovakia, Hungary, Romania, Poland, Lithuania, and Ukraine.

While summer crop conditions remain more favourable in parts of northern and eastern Europe, the overall outlook for summer crops has been sharply reduced — soybeans, for example, are 15% below the five-year average, green maize 14% below, grain maize 8% below, and rice 3% below.

The drought conditions in Europe have also been assessed by the Crop Monitor for AMIS (Agricultural Market Information System)[13], which reports that the impacts of drought on Europe are a pressing concern, with various crops being affected by the prevailing conditions. Wheat harvesting is finishing in the EU, with above-average yields in Bulgaria and Romania, but below-average yields in parts of western and central Europe. Maize conditions are mixed across Europe, with persistent heat and drought substantially worsening crop conditions in western and central Europe. Soybean conditions are also a concern, with hot, dry weather affecting crops in Europe. The ongoing El Niño event may bring above-average precipitation in the coming months, but the overall impact remains to be seen as nonlinear effects may be induced by unprecedented intensities it may reach.

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11 https://joint-research-centre.ec.europa.eu/monitoring-agricultural-resources-mars/jrc-mars-bulletin_en

12 https://joint-research-centre.ec.europa.eu/monitoring-agricultural-resources-mars/jrc-mars-bulletin_en#crop-monitoring-in-europe

13 GEOGLAM (Group on Earth Observation Global Agricultural Monitoring) https://www.cropmonitor.org/crop-monitor-for-amis

11.2. Energy systems and electricity markets

Several nuclear power plants were reported to be shut down due to lack of cooling water and the warmer water temperatures. In the following overview, some of the power plants switched off and reported by media are listed. France, Hungary and Romania are affected, whilst also gas-powered plants were reported to be shut down in the UK[14, 15].

Table 1. Overview of power plants affected by the July-August drought and heatwaves in Europe.

Powerplant	Capacity, MW	River	Main reason
Golfech[15]	1360	Garonne, France	Water temperature
Nogent[16]	1369	Seine, France	Water temperature
Saint Alban[16]	1300	Rhone, France	Water temperature
Bugey[16]	910	Rhone, France	Water temperature
Blayais[16]	910	Gironde, France	Water temperature
Cernavoda[17, 18, 19]	700	Danube, Romania	Low flow
Paks[17, 20]	475 (7 times)	Danube, Hungary	Low flow

Source: technologyreview.com, beyondtmrw.org, ilgiornaleditalia.it, thechemicalengineer.com, nbcnews.com, newsscientist.com.

Hydropower plants also severely decreased their energy generating capacity during the persistent period of low-flow and low reservoir levels, like in the Ticino river, the longest Po river tributary[21].

11.3. Human health and emergency heatwave response

The heatwave in June reported an excess in loss of lives, but these figures are only estimated based on excess mortality. Numbers of around 20.000 victims are reported[22]. In addition, a debate was provoked on the use of air conditioning systems[23]. The WHO (World Health Organization) Regional Director for Europe addressed a preparedness statement at the end of June[24]. In the UK,

14 https://www.theguardian.com/business/2026/jun/23/electricity-prices-jump-in-europe-as-demands-soars-in-the-heatwave

15 https://www.technologyreview.com/2026/06/24/1139676/europe-heat-power-plants/

16 https://beyondtmrw.org/article/europe-extreme-heat-forces-power-plant-shutdowns

17 https://www.ilgiornaleditalia.it/news/cronaca/812809/quando-i-fiumi-smettono-di-alimentare-le-centrali-siccita-e-caldo-mettono-alla-prova-lenergia-europea-e-costringono-bruxelles-a-ripensare-la-transizione.html

18 https://www.thechemicalengineer.com/news/romania-starts-shutting-down-sole-nuclear-power-station-over-drought/

19 https://www.nbcnews.com/world/europe/romania-begins-shutdown-nuclear-plants-2nd-reactor-low-water-levels-da-rcna592290

20 https://www.newscientist.com/article/2583740-drought-and-heat-push-europes-power-grid-to-breaking-point/

21 https://www.ticinonews.ch/ticino/manca-acqua-nel-fiume-ticino-e-lidroelettrico-ha-sete-440558

22 https://www.newscientist.com/article/2532825-june-heatwave-may-have-killed-around-20000-people-in-europe/

23 https://www.euronews.com/my-europe/2026/06/26/to-use-air-con-or-not-the-facts-behind-the-politicised-battle-to-stay-cool-in-europe

24 https://www.who.int/europe/news/item/30-06-2026-statement---get-prepared--current-european-region-heatwaves-are-a-dress-rehearsal

health alerts were issued by the Health Security Agency (UKHSA) due to high temperature[25, 26], while most of the country was in drought conditions[27].

In France, drink water availability became a widespread concern in August[28, 29], with usage of tanker trucks reported[30].

An analysis conducted by the Italian National Research Council, CNR-IBE (Consiglio Nazionale delle Ricerche, Istituto per la Bioeconomia), found that summer 2026 was the hottest in Italy since temperatures started to be registered in 1950. The average temperature of 25.6 °C registered in August broke the previous records of 2024 (24.6°C) and 2017 (24°C)[31].

11.4. Hydrology and water resources

The water level of Danube in the Bulgarian section was stable on 25 August, and all the vessel draft restrictions remained in force[32]. Water supply restrictions are reported in Bulgaria, although less severe than in the same period last year[33].

The Rhine was severely affected by low flow in July and August, as shown by the measurements in the ten gauges along the river provided by the International Commission for the Protection of the Rhine (ICPR) through the UNDINE platform[34] and present also in EDO as regional layer[35]. Daily data depict the evolution of the Rhine discharge in these two months. After few days at the beginning of July with regular conditions, the situation worsened rapidly towards “less frequent low flow” (registered in 2 gauges) and “rare low flow” (5 gauges) already on the 14th of July in the middle and lower basin. After a quick recovery at the end of the second ten-day period of July, the discharge reduced again, reaching “very rare low flow” conditions on the 29th and first classes of low flow affecting also the upper basin. In August the situation saw severe worsening until the mid of the month. On day 16, all the 10 gauges presented low flow conditions: the 5 lowest gauges were in “extremely rare low flow” (the worst class defined by UNDINE), 2 in “very rare low flow”, 1 in “rare low flow conditions” and 2 in “less frequent low flow”. Data show a clear discharge improvement after the 20 August, with gauges transitioning towards less rare classes, with 7 of them in “frequent low flow” and 2 still in “less frequent low flow” on 31 August. Very low discharge from the

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25 https://www.gov.uk/government/news/ukhsa-updates-heat-health-alerts-across-england

26 https://www.standard.co.uk/news/environment/england-london-northern-ireland-kew-gardens-met-office-b1293311.html

27 https://www.independent.co.uk/news/uk/home-news/uk-drought-england-map-2026-water-areas-b3031709.html

28 https://www.tf1info.fr/environnement-ecologie/secheresse-des-tensions-d-approvisionnement-en-eau-potable-pour-40000-personnes-dans-50-departements-selon-monique-barbut-2458078.html

29 https://www.riskassur-hebdo.com/actu01/actu_auto.php?adr=1408260741

30 https://www.franceinfo.fr/replay-jt/france-2/8-heures/secheresse-ce-village-oblige-de-faire-appel-a-un-camion-citerne-pour-s-approvisionner-en-eau-potable_8144258.html

31 https://www.cnr.it/it/nota-stampa/n-14606/estate-2026-la-piu-calda-dal-1950

32 https://www.bta.bg/en/news/bulgaria/1192097-danube-levels-mostly-unchanged-slight-rises-recorded-at-novo-selo-nikopol-and-

33 https://www.bta.bg/en/news/bulgaria/1192566-over-36-000-people-across-bulgaria-affected-by-water-supply-re-strictions-in-end-

34 https://undine.bafg.de/rhein/zustand-aktuell/rhein_nw_mon_en.html

35 low flow peak at 16/08/2026: https://drought.emergency.copernicus.eu/tumbo/edo/map/?prodCode=rhngg&time=2026-08-16

Rhine caused widespread salinization and severely impacted Dutch river transport. Meanwhile, groundwater levels across the entire country matched or dropped below the extreme lows seen in 2018 and 2022[36].

Drought was severely affecting also the Po river basin in northern Italy, with low flows in the main river and in its tributaries[37, 38] and exceptional low levels in lakes. This entailed issues in water usage, especially for agriculture[39]. An agreement between Switzerland and Italy was signed in mid-August to let more water flow from the Swiss section of the catchment towards Lake Maggiore, facing a very critical situation also for supplying water to the agricultural areas of the Po Valley[40]. Aquifers were also impacted, with reduction reported in the Marche region (central Italy)[41].

Low-flow conditions in rivers were also detected in the UK, for example in the Severn River, with concerns about its regulation[42]. Reservoirs presented exceptionally low levels in Southern England and Wales, including five key reservoirs for water supply in the country[43]. The situation is far from recovering, as reported e.g. by a water supply company in England and Wales at the beginning of September, with a temporary use ban and restrictions[44].

Water restrictions were also affecting France, with possibility to last also in September according to INRAE (Institut National de Recherche pour l'Agriculture, l'Alimentation et l'Environnement)[45]. Moreover, the drought posed issues in proper water usage in rural areas[46].

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36 https://www.deltares.nl/en/news/the-social-consequences-of-2026-drought-in-the-netherlands-a-first-impression

37 https://www.ecodibergamo.it/stories/premium/hinterland/il-fiume-serio-in-agonia-portata-quasi-azzerata-o_3928462_11/

38 https://www.resegoneonline.it/allarme-siccita-nel-bacino-delladda-riserve-crollate-di-oltre-il-60-agricoltura-e-allevamenti-in-ginocchio/38780/

39 https://www.ilgiorno.it/brescia/cronaca/pianura-morsa-della-siccita-razionata-acqua-fiumi-quvzpyyx

40 https://www.radiolombardia.it/2026/08/14/piu-acqua-verso-il-lago-maggiore-accordo-italia-svizzera-contro-lemergenza-idrica/

41 https://www.ilrestodelcarlino.it/macerata/cronaca/caldo-record-e-siccita-allerta-68bc3c52

42 https://inews.co.uk/news/river-severn-running-low-4714220

43 https://www.theguardian.com/environment/2026/aug/14/reservoirs-england-wales-exceptionally-low-water-drought

44 https://www.eswater.co.uk/help-and-support/water/saving-water/temporary-use-ban/ and https://www.dunmowbroadcast.co.uk/news/26523058.essex-suffolk-water-hosepipe-ban-update-following-rainfall/

45 https://www.connexionfrance.com/news/water-restrictions-in-france-set-to-last-into-autumn-as-drought-deepens/810611

46 https://www.dna.fr/economie/2026/08/25/secheresse-la-gestion-des-reservoirs-d-eau-communaux-se-complique

Water restrictions were registered in some departments of France[47, 48] and in some areas of Spain[49, 50, 51] and Ireland[52], while discussion on the optimal usage of drink water was triggered by water companies in the UK[53].

In the Netherlands, an exceptional situation of prolonged drought was reported[54], with only 16.7% of the long-term average rainfall received in July according to the Royal Netherlands Meteorological Institute (KNMI) and diffuse river low flow situations.

11.5. Ecosystems

In the Netherlands, a wetland in Brabant dried up leading to all fish dying. Severe impacts on forest were also observed with many leaves already falling[55].

In Britanny (France), a similar event happened, and volunteers tried to save the fish from dying in drying out riverbeds[56].

In the Netherlands, the impact of drought in the sandy areas, with drying up of streams and fens, is exacerbated by structural desiccation resulting from intensive drainage and groundwater abstraction. For this reason, bans on water abstraction from groundwater and surface water were imposed on a larger scale, including on greenhouse irrigation[36].

In Switzerland, glacial retreat and loss of permafrost were reported[57].

In the UK, several events of algal bloom were reported, leading to restrictions on access to bathing water[58].

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47 https://actu.fr/bretagne/rennes_35238/l-ille-et-vilaine-en-crise-la-secheresse-pese-sur-l-eau-voici-les-nouvelles-restrictions-qui-entrent-en-vigueur_64664400.html

48 https://www.ici.fr/normandie/calvados-14/la-moitie-ouest-du-calvados-placee-en-crise-secheresse-l-approvisionnement-en-eau-potable-est-fortement-menacee-5143796

49 https://www.que.es/2026/08/26/restricciones-agua-sequia-prohibido-lavar-coche/

50 https://www.laopinioncoruna.es/gran-coruna/2026/08/19/curtis-busca-nuevas-fuentes-agua-133484464.html

51 http://www.gentedigital.es/palma-de-mallorca/noticia/4382762/ciutadella-activa-restricciones-de-agua-ante-la-situacion-de-prealerta-por-sequia/

52 https://www.carlow-nationalist.ie/news/water-conservation-order-in-carlow-extended-to-end-of-september_arid-109273.html

53 https://inews.co.uk/news/water-ban-restriction-risk-areas-4701504?ico=in-line_link

54 https://famagusta-gazette.com/netherlands-is-facing-an-exceptional-situation-of-prolonged-drought/

55 https://www.omroepbrabant.nl/nieuws/6024070/honderden-dode-vissen-te-zien-op-bodem-van-drooggevallen-moeras

56 https://www.theguardian.com/world/2026/jul/25/france-rivers-heatwaves-water-levels-drop

57 https://glacierchange.blog/category/switzerland-glacier-retreat/

58 https://www.gov.uk/government/publications/dry-weather-and-drought-in-england-2026-summary-reports/dry-weather-and-drought-in-england-24-to-30-july-2026

List of abbreviations and definitions

Abbreviations	Definitions
BOM	Bureau of Meteorology, Australia
C3S	Copernicus Climate Change Service
CDI	Combined Drought Indicator
CEMS	Copernicus Emergency Management Service
CMCC	Centro Euro-Mediterraneo sui Cambiamenti Climatici
CNR	Consiglio Nazionale delle Ricerche
DWD	Deutscher Wetterdienst
ECCC	Environment and Climate Change Canada
ECMWF	European Centre for Medium-Range Weather Forecasts
EDO	European Drought Observatory (Copernicus Emergency Management Service, CEMS)
EFAS	European Flood Awareness System
EFFIS	European Forest Fire Information System
ERA5	ECMWF Reanalysis v5
EU	European Union
fAPAR	Fraction of Absorbed Photosynthetically Active Radiation
GDO	Global Drought Observatory (Copernicus Emergency Management Service, CEMS)
GEOGLAM	Group on Earth Observation Global Agricultural Monitoring
IBE	Istituto per la Bioeconomia
ICPR	International Commission for the Protection of the Rhine

Abbreviations	Definitions
INRAE	Institut National de Recherche pour l'Agriculture, l'Alimentation et l'Environnement
JRC	Joint Research Centre
KNMI	Koninklijk Nederlands Meteorologisch Instituut
LFI	Low-Flow Index
MARS	Monitoring Agricultural ResourceS
NCEP	National Centers for Environmental Prediction (National oceanic and Atmospheric Administration, NOOA)
OS LISFLOOD	grid-based hydrological rainfall-runoff-routing model
PET	Potential Evapotranspiration
SEAS	Seasonal Forecasting System
SMA	Soil Moisture Index Anomaly
SPEI	Standardized Precipitation Evapotranspiration
SPI	Standardized Precipitation Index
UKMO	United Kingdom Meteorological Office
UKHSA	United Kingdom Health Security Agency
VIIRS	Visible Infrared Imaging Radiometer Suite
WHO	World Health Organization

List of figures

Figure 1. The Combined Drought Indicator (CDI), based on a combination of indicators of precipitation, soil moisture, and vegetation conditions, in late August 2026. 7

Figure 2. SPI-3 in late August 2026. 8

Figure 3. Accumulated heatwave intensity estimated until: 25 May (a), 27 June (b), 14 July (c), 6 August (d), 14 August (e), and 8 September(f). Values are in degrees Celsius (°C). Yellow contours highlight the areas with a heatwave duration of at least 7 days. 9

Figure 4. Evolution of the identified heatwaves. The maps show the accumulated heatwave intensity, from 15 May to 12 September 2026, in degrees Celsius (°C). 10

Figure 5. Heatwave temporal evolution in a few hot spots of the events in: the UK (a), eastern Netherlands (b), western Germany (c), central France (d), northern Spain (e), southern Hungary (f), eastern Czechia (g), the Italian Alps (h), southern Italy (i). Values represent the accumulated heatwave intensity of the events detected from 15 May until 12 September 2026, in degrees Celsius (°C). 11

Figure 6. SPEI-3 in late August 2026. 13

Figure 7. Soil Moisture Index Anomaly, late August 2026. 14

Figure 8. Low-Flow Index (LFI) in late August 2026. 15

Figure 9. VIIRS (Visible Infrared Imaging Radiometer Suite) satellite-derived fAPAR anomalies in late August 2026. 16

Figure 10. Fire events recorded by EFFIS in 2026 (up to 31 August). 17

Figure 11. Weekly progression of burnt areas in EU countries in 2026. 18

Figure 12. Location and magnitude of the fire events recorded by EFFIS from January to May. 19

Figure 13. Location and magnitude of the fire events recorded by EFFIS from 1 June to 31 August. 20

Figure 14. Multi-system Indicator for Forecasting Unusually Wet and Dry Conditions, September - November 2026, based on dynamic forecasting systems from 8 centres, issued in August 2026: ECMWF, CMCC, DWD, ECCC, Météo France, NCEP, UKMO, BOM. The baseline period is 1993-2016.. 21

Figure 15. Multi-system Indicator for Forecasting Unusually Warm and Cool Conditions, September 2026, based on dynamic forecasting systems from 8 centres, issued in August 2026: ECMWF, CMCC, DWD, ECCC, Météo France, NCEP, UKMO, BOM. The baseline period is 1993-2016. 22

Figure 16. Seasonal forecast anomaly and uncertainty for October 2026 provided by the 7-month simulation covering October 2026 to April 2027, with information aggregated by river basin. Different colours indicate the anomaly category, while the colour intensity shows the confidence level in the anomalies, with the lighter colours associated with higher uncertainty. The forecast anomaly and uncertainty signals are derived by comparing the EFAS (European Flood Awareness System) hydrological forecast driven by ECMWF SEAS5 (Seasonal Forecasting System 5) to the 99-value percentile climatology. The climatology is generated by using the ECMWF SEAS5 reforecasts over a 20-year period. 23

List of tables

Table 1. Overview of power plants affected by the July-August drought and heatwaves in Europe... 25

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