

# European drought dries up rivers, kills fish, shrivels crops

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Boats lay on the dried lake bed in a port in Velence, Hungary, Thursday, Aug. 11, 2022. An unprecedented drought is afflicting nearly half of the European continent, damaging farm economies, forcing water restrictions and threatening aquatic species. Water levels are falling on major rivers such as the Danube, the Rhine and the Po. Credit: AP Photo/Anna Szilagy, File

Once, a river ran through it. Now, white dust and thousands of dead fish cover the wide trench that winds amid rows of trees in France's Burgundy region in what was the Tille River in the village of Lux.

From dry and cracked reservoirs in Spain to falling water levels on major arteries like the Danube, the Rhine and the Po, an unprecedented drought is afflicting nearly half of Europe. It is damaging farm economies, forcing water restrictions, [causing wildfires](#) and threatening aquatic species.

There has been no significant rainfall for almost two months in the continent's western, central and southern regions. In typically rainy Britain, the government officially declared a drought across southern and central England on Friday amid one of the hottest and driest summers on record.

And Europe's dry period is expected to continue in what experts say could be the worst drought in 500 years.

Climate change is exacerbating conditions as hotter temperatures speed up evaporation, thirsty plants take in more moisture and reduced snowfall in the winter limits supplies of fresh water available for irrigation in the summer. Europe isn't alone in the crisis, with drought conditions also reported in East Africa, the western United States and northern Mexico.



A sign on a fence near the dried-up river Tille says 'Swimming is Forbidden' in Lux, France, Tuesday Aug. 9, 2022. Burgundy, home to the source of the Seine River which runs through Paris, normally is a very green region. This year, grass turned yellow, depriving livestock from fresh food, and tractors send giant clouds of dust in the air as farmers work in their dry fields. Credit: AP Photo/Nicholas Garriga

As he walked in the 15-meter (50-foot) wide riverbed in Lux, Jean-Philippe Couasné, chief technician at the local Federation for Fishing and Protection of the Aquatic Environment, listed the species of fish that had died in the Tille.

"It's heartbreaking," he said. "On average, about 8,000 liters (2,100 gallons) per second are flowing. ... And now, zero liters."

In areas upstream, some trout and other freshwater species can take shelter in pools via fish ladders. But such systems aren't available everywhere.

Without rain, the river "will continue to empty. And yes, all fish will die. ... They are trapped upstream and downstream, there's no water coming in, so the oxygen level will keep decreasing as the (water) volume goes down," Couasn  said. "These are species that will gradually disappear."



A view of a dry lake bed near the village of Conoplja, 150 kilometers north-west of Belgrade, Serbia, Tuesday, Aug. 9, 2022. Water shortages reduced Serbia's hydropower production. Credit: AP Photo/Darko Vojinovic, File

Jean-Pierre Sonvico, the regional head of the federation, said diverting

the fish to other rivers won't help because those waterways also are affected.

"Yes, it's dramatic because what can we do? Nothing," he said. "We're waiting, hoping for storms with rain, but storms are very local so we can't count on it."

The European Commission's Joint Research Center warned this week that drought conditions will get worse and potentially affect 47% of the continent.

Andrea Toreti, a senior researcher at the European Drought Observatory, said a drought in 2018 was so extreme that there were no similar events for the last 500 years, "but this year, I think, it is really worse."

For the next three months, "we see still a very high risk of dry conditions over Western and Central Europe, as well as the U.K.," Toreti said.



A dead fish skeleton laying on the cracking earth of a dry lake bed near the village of Conoplja, 150 kilometers north-west of Belgrade, Serbia, Tuesday, Aug. 9, 2022. Water shortages reduced Serbia's hydropower production. An unprecedented drought is afflicting nearly half of the European continent, damaging farm economies, forcing water restrictions and threatening aquatic species. Water levels are falling on major rivers such as the Danube, the Rhine and the Po. Credit: AP Photo/Darko Vojinovic, File

Current conditions result from long periods of dry weather caused by changes in world weather systems, said meteorologist Peter Hoffmann of the Potsdam Institute for Climate Impact Research near Berlin.

"It's just that in summer we feel it the most," he said. "But actually the drought builds up across the year."

Climate change has lessened temperature differences between regions, sapping the forces that drive the jet stream, which normally brings wet Atlantic weather to Europe, he said.

A weaker or unstable jet stream can bring unusually hot air to Europe from North Africa, leading to prolonged periods of heat. The reverse is also true, when a polar vortex of cold air from the Arctic can cause freezing conditions far south of where it would normally reach.

Hoffmann said observations in recent years have all been at the upper end of what existing climate models predicted.



A tractor throws up a cloud of dust as it works in a sun-dried field in Til-Chatel, France, Tuesday Aug. 9, 2022. Burgundy, home to the source of the Seine River which runs through Paris, normally is a very green region. This year, grass turned

yellow, depriving livestock from fresh food, and tractors send giant clouds of dust in the air as farmers work in their dry fields. Credit: AP Photo/Nicholas Garriga

The drought has caused some European countries to restrict water usage, and shipping is endangered on the Rhine and the Danube rivers.

The Rhine, Germany's biggest waterway, is forecast to reach critically low levels in the coming days. Authorities say it could become difficult for many large ships to safely navigate the river at the city of Kaub, roughly midway between Koblenz and Mainz.

On the Danube, authorities in Serbia have started dredging to keep vessels moving.

In neighboring Hungary, wide parts of Lake Velence near Budapest have turned into patches of dried mud, beaching small boats. Aeration and water circulation equipment was installed to protect wildlife, but water quality has deteriorated. A weekend swimming ban was imposed at one beach.

Stretches of the Po, Italy's longest river, are so low that barges and boats that sank decades ago are resurfacing.





Farmer, Baptiste Colson, holds a clump of dried earth and grass as he stands in a sun-dried field in Moloy, France Wednesday Aug. 10, 2022. Burgundy, home to the source of the Seine River which runs through Paris, normally is a very green region. This year, grass turned yellow, depriving livestock from fresh food, and tractors send giant clouds of dust in the air as farmers work in their dry fields. Credit: AP Photo/Nicholas Garriga

Italy's Lake Garda has fallen to its lowest levels ever, and people who flocked to the popular spot east of Milan at the start of a long summer weekend found a newly exposed shoreline of bleached rocks with a yellow hue. Authorities recently released more water from the lake, Italy's largest, to help with irrigation, but halted the effort to protect the lucrative tourist season.

The drought also has affected England, which last month had its driest

July since 1935, according to the Met Office weather agency. The lack of rain has depleted reservoirs, rivers and groundwater and left grasslands brown and tinder-dry.

Millions in the U.K. already were barred from watering lawns and gardens, and 15 million more around London will face such a ban soon.

U.K. farmers face running out of irrigation water and having to use winter feed for animals because of a lack of grass. The Rivers Trust charity said England's chalk streams—which allow underground springs to bubble up through the spongy layer of rock—are drying up, endangering aquatic wildlife like kingfishers and trout.



Dead fish lay on the dried-up bed of the river Tille in Lux, France, Tuesday Aug. 9, 2022. Burgundy, home to the source of the Seine River which runs through

Paris, normally is a very green region. This year, grass turned yellow, depriving livestock from fresh food, and tractors send giant clouds of dust in the air as farmers work in their dry fields. Credit: AP Photo/Nicholas Garriga

Even countries like Spain and Portugal, which are used to long periods without rain, have seen major consequences. In the Spanish region of Andalusia, some avocado farmers have had to sacrifice hundreds of trees to save others from wilting as the Vinuela reservoir in Malaga province dropped to only 13% of capacity.

Some European farmers are using water from the tap for their livestock when ponds and streams go dry, using up to 100 liters (26 gallons) a day per cow.

In normally green Burgundy, the source of Paris' Seine River, the grass has turned yellow-brown and tractors churn up giant clouds of dust.

Baptiste Colson, who owns dairy cows and grows feed crops in the village of Moloy, said his animals are suffering, with the quality and quantity of their milk decreasing. The 31-year-old head of the local Young Farmers union said he has been forced to dip into his winter fodder in August.



Wilted sunflowers in a field near the village of Conoplja, 150 kilometers northwest of Belgrade, Serbia, Tuesday, Aug. 9, 2022. Drought in Serbia have led to forecasts for this year's harvests being reduced. An unprecedented drought is afflicting nearly half of the European continent, damaging farm economies, forcing water restrictions and threatening aquatic species. Water levels are falling on major rivers such as the Danube, the Rhine and the Po. Credit: AP Photo/Darko Vojinovic, File



A paddle boarder passes through a drying portion of the Verdon Gorge in southern France, Tuesday, Aug. 9, 2022. France was in the midst of its fourth heat wave of the year Monday as the country faces what the government warned is its worst drought on record. Credit: AP Photo/Daniel Cole, File



Dead fish lay on the dried-up bed of the river Tille in Lux, France, Tuesday Aug. 9, 2022. Burgundy, home to the source of the Seine River which runs through Paris, normally is a very green region. This year, grass turned yellow, depriving livestock from fresh food, and tractors send giant clouds of dust in the air as farmers work in their dry fields. Credit: AP Photo/Nicholas Garriga



A goose looks for water in the dried bed of Lake Velence in Velence, Hungary, Thursday, Aug. 11, 2022. An unprecedented drought is afflicting nearly half of the European continent, damaging farm economies, forcing water restrictions and threatening aquatic species. Water levels are falling on major rivers such as the Danube, the Rhine and the Po. Credit: AP Photo/Anna Szilagyi, File



The sun beats down on the dried-up bed of the river Tille in Lux, France, Tuesday Aug. 9, 2022. Burgundy, home to the source of the Seine River which runs through Paris, normally is a very green region. This year, grass turned yellow, depriving livestock from fresh food, and tractors send giant clouds of dust in the air as farmers work in their dry fields. Credit: AP Photo/Nicholas Garriga





A view the dried-up river Tille in Lux, France, Tuesday Aug. 9, 2022. Burgundy, home to the source of the Seine River which runs through Paris, normally is a very green region. This year, grass turned yellow, depriving livestock from fresh food, and tractors send giant clouds of dust in the air as farmers work in their dry fields. Credit: AP Photo/Nicholas Garriga



A tractor throws up a cloud of dust as it works in a sun-dried field in Til-Chatel, France, Tuesday Aug. 9, 2022. Burgundy, home to the source of the Seine River which runs through Paris, normally is a very green region. This year, grass turned yellow, depriving livestock from fresh food, and tractors send giant clouds of dust in the air as farmers work in their dry fields. Credit: AP Photo/Nicholas Garriga



Cows eat whatever green vegetation remains in a sun-dried field in Moly, Burgundy region, France Wednesday Aug. 10, 2022. Burgundy, home to the source of the Seine River which runs through Paris, normally is a very green region. This year, grass turned yellow, depriving livestock from fresh food, and tractors send giant clouds of dust in the air as farmers work in their dry fields. Credit: AP Photo/Nicholas Garriga



The dried riverbed of the Po river in Sermide, Italy, Thursday, Aug.11, 2022. The river Po runs 652 kilometers (405 miles) from the northwestern city of Turin to Venice. An unprecedented drought is afflicting nearly half of the European continent, damaging farm economies, forcing water restrictions and threatening aquatic species. Water levels are falling on major rivers such as the Danube, the Rhine and the Po. Credit: AP Photo/Luigi Navarra, File



The river Rhine is pictured with low water in Cologne, Germany, Wednesday, Aug. 10, 2022. An unprecedented drought is afflicting nearly half of the European continent, damaging farm economies, forcing water restrictions and threatening aquatic species. Water levels are falling on major rivers such as the Danube, the Rhine and the Po. Credit: AP Photo/Martin Meissner, File



Horses graze next to a tree that fell years ago on the dried out meadow of a stud farm in Wehrheim near Frankfurt, Germany, Thursday, Aug. 11, 2022. An unprecedented drought is afflicting nearly half of the European continent, damaging farm economies, forcing water restrictions and threatening aquatic species. Water levels are falling on major rivers such as the Danube, the Rhine and the Po. Credit: AP Photo/Michael Probst



A motorcycle drives through the lavender fields of Valensole during a hot day in southern France, Tuesday, Aug. 9, 2022. France was in the midst of its fourth heat wave of the year Monday as the country faces what the government warned is its worst drought on record. Credit: AP Photo/Daniel Cole, File



People take photos on the southern tip of Margaret Island, which can be seen due to low water level of the River Danube. in Budapest, Hungary, Tuesday, Aug. 9, 2022. An unprecedented drought is afflicting nearly half of the European continent, damaging farm economies, forcing water restrictions and threatening aquatic species. Water levels are falling on major rivers such as the Danube, the Rhine and the Po. Credit: AP Photo/Anna Szilagy, File





A sunbather stands in front of the receding water line of the Verdon Gorge, southern France, Tuesday, Aug. 9, 2022. France was in the midst of its fourth heat wave of the year Monday as the country faces what the government warned is its worst drought on record. Credit: AP Photo/Daniel Cole, File



Boats lie on the dried riverbed at a tourist dock along the Po river in Sermide, Italy, Thursday, Aug. 11, 2022. The river Po runs 652 kilometers (405 miles) from the northwestern city of Turin to Venice. Credit: AP Photo/Luigi Navarra, File



Dry and sun burnt grass spreads in Greenwich Park with the backdrop of Queens House and the high risers of Canary Wharf in London, Tuesday, Aug. 9, 2022. Britain is braced for another heatwave that will last longer than July's record-breaking hot spell, with highs of up to 35 C expected next week. Credit: AP Photo/Frank Augstein, File



People take a stroll on the river bed of the Waal as water levels dropped because of drought in Nijmegen, Netherlands, Tuesday, Aug. 9, 2022. In parts of the country a ban on daytime irrigation of agricultural land has been issued because of extreme drought. Credit: AP Photo/Peter Dejong, File



A boat laying on a dry bank of river Danube after a long time of drought near the village of Cortanovci, 50 kilometers north-west of Belgrade, Serbia, Tuesday, Aug. 9, 2022. Credit: AP Photo/Darko Vojinovic, File

"That is the biggest concern," Colson said.

EU corn production is expected to be 12.5 million tons below last year and sunflower production is projected to be 1.6 million tons lower, according to S&P Global Commodity Insights.

Colson expects at least a 30% drop in corn yields, a major problem for feeding his cows.

"We know we'll have to buy food ... so the cows can continue producing

milk," he said. "From an economic point of view, the cost will be high."

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