Europe's heatwaves and droughts put focus on climate change risks



Lake Garda water level has dropped critically following severe drought, resulting in rocks to emerge around the Sirmione Peninsula on August 12, 2022 [Antonio Calanni/AP Photo]?

Rome, August 14 (RHC)-- Italy's worst drought in decades has reduced Lake Garda, the country's largest, to near its lowest level ever recorded and warming the water to temperatures that approach the average in the Caribbean Sea.

Northern Italy has not seen significant rainfall for months, and snowfall this year was down 70 percent, drying up vital waterways such as the Po River, which flows across Italy's agricultural and industrial

heartland.

Many European countries, including Spain, Germany, Portugal, France, the Netherlands and the United Kingdom, are enduring droughts this summer that have hurt farmers and shippers and promoted authorities to restrict water use.

Successive heatwaves have also renewed the focus on climate change risks for Europe. The European Commission's Joint Research Centre warned this week that drought conditions will get worse and potentially affect 47 percent 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 in 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 UK", Toreti said. 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.

Following is a breakdown by countries>

Italy

The parched condition of the Po, Italy's longest river, has already caused billions of euros in losses to farmers who normally rely on it to irrigate fields and rice paddies.

To compensate, authorities allowed more water from Lake Garda to flow out to local rivers – 70 cubic metres (2,472 cubic feet) of water per second. But in late July, they reduced the amount to protect the lake and the financially important tourism tied to it.

With 45 cubic metres (1,589 cubic feet) of water per second being diverted from Garda to rivers, the lake on Friday was just 32cm (12.6 inches) above the water table, near the record lows registered in 2003 and 2007.

The lake's temperature, meanwhile, has been above average for August, according to seatemperature.org. On Friday, the Garda's water was nearly 26 degrees Celsius (78 degrees Fahrenheit), several degrees warmer than the average August temperature of 22C (71.6F) and nearing the Caribbean Sea's average of about 27C (80F).

France

France has also been hit this summer by a historic drought that has forced water use restrictions nationwide, as well as a series of heatwaves that experts say are being driven by climate change.

Fires in France in 2022 have ravaged an area three times the annual average over the past 10 years, with blazes active in the Alpine Jura, Isere and Ardeche regions this week.

European Copernicus satellite data showed more carbon dioxide greenhouse gas – over 1 million tonnes – had been released from 2022's forest fires in France. This is more than in any summer since records began in 2003.

French firefighters are keeping a wary eye on a huge blaze that appeared to be contained in the country's southwest Bordeaux region on Saturday, with thunderstorms and strong wind gusts expected in the area.

The 40km (25-mile) fire front in the Gironde and Landes departments around Bordeaux "did not significantly progress overnight. Firefighters are working on its periphery," police said in a statement. But officials said it was premature to say that the blaze – which has already reignited once – was under control.

"We remain vigilant" because "while we can't see huge flames, the fire continues to consume vegetation and soil," Arnaud Mendousse, lieutenant colonel of Gironde fire and rescue, told the AFP news agency.

The blaze near Bordeaux erupted in July – the driest month seen in France since 1961 – destroying 14,000 hectares (34,600 acres) and forcing thousands of people to evacuate before it was contained.

But the fire has continued to smoulder in the tinder-dry pine forests and peat-rich soil.

Al Jazeera's Bernard Smith, reporting from Gironde, said the challenge faced by emergency workers is the reoccurrence of fires that they have already extinguished due to high temperatures and extremely dry conditions.

"One of the challenges for them is because the temperatures are so high, and the ground is so dry, as soon as the water hits the ground it evaporates. So it takes a lot more water and a lot more effort to put out the flames."

Portugal

Portugal's civil protection agency on Saturday said it had brought a wildfire which has ravaged 17,000 hectares (42,000 acres) under control in the UNESCO-designated Serra da Estrela natural park.

The fire had been raging in the park for a week and was contained overnight, civil protection agency official Miguel Criz told TSF radio.

"There is still a lot of work left" to prevent new fires, he said, adding that strong winds on Saturday were a cause of concern for firefighters.

Portugal's Interior Minister Jose Luis Carneiro termed the fire an "environmental tragedy".

Portugal recorded its hottest July in nearly a century and wildfires this year have ravaged some 79,000 hectares (195,200 acres).

Germany

In the German capital, Berlin, firefighters were called out to a forest fire in the forested area of the city called Grunewald. About 4,000 square metres of forest floor had burned, a fire brigade spokesperson said on Saturday morning, explaining that the forest floor was so dry it was not easy to extinguish the fire, requiring firefighters to dig up the embers with tools.

Water levels in Germany's Rhine River also continue to dwindle, as authorities reported a drop of about 6cm (2.4 inches) over the past 24 hours on Saturday.

According to the GDWS, a body responsible for waterways and shipping, the water level at Kaub in the state of Rhineland-Palatinate, an important marker for shipping, now stands at 36cm (14.2 inches), with the authority predicting that it could fall to 30cm (11.8 inches) by Monday.

Freight and passenger ships have been struggling with low water levels in the Rhine for several weeks.

United Kingdom

In the UK, the heatwave is also hitting hard, with the government formally declaring parts of southern, central and eastern England in drought after a prolonged period of hot and dry weather.

England has suffered its driest July since 1935, with only 35 percent of the average rainfall for the month, and parts of England and Wales are now under an "extreme heat" alert.

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