As the climate dries the American West faces power and water shortages

Dossier de
 la rÃ©daction de H2o
August 2022

Two of the largest reservoirs in America, which provide water and electricity to millions, are in danger of reaching 'dead pool status'. A result of the climate crisis and overconsumption of water, experts say. Lake Mead, in Nevada and Arizona, and Lake Powell, in Utah and Arizona, are currently at their lowest levels ever. 'Dead pool' status would mean the water level in the dams was so low it could no longer flow downstream and power the hydroelectric power stations. The Lake Mead reservoir, which is the largest artificial body of water in America, was created in the 1930s by the construction of the Hoover Dam, an engineering masterpiece. Lake Powell, the second largest, was created in the 1960s, with the construction of the Glen Canyon Dam.

"The conditions in the American west, which we're seeing around the Colorado River basin, have been so dry for more than 20 years that we're no longer speaking of a drought,"Â said Lis Mullin Bernhardt, an ecosystems expert at the United Nations Environment Programme (UNEP),Â "We refer to it as 'aridification'Â -Â a new very dry normal."Â Lake Mead and Lake Powell, which is created by the Glen Canyon Dam, not only provide water and electricity to tens of millions in Nevada, Arizona, California, Wyoming, Colorado, New Mexico and Mexico, but they also provide irrigation water for agriculture. Experts warn that as the crisis deepens, water cuts will need to be introduced, but this may not be enough.Â "While regulating and managing water supply and demand are essential in both the short and long term, climate change is at the heart of this issue,"Â said Maria Morgado, UNEP's Ecosystems Officer in North America.Â "In the long term we need to address the root causes of climate change as well as water demands."

Over the last 20 years, 90% of major disasters were caused by floods, droughts and other water-related events. With more frequent droughts, people in water-scarce areas will increasingly depend on groundwater because of its buffer capacity and resilience to climate variability. Increases in water demand due to growing populations and irrigation for agriculture have been compounded by climate change impacts such as reductions in precipitation and temperature rises. A rise in temperature leads to increased evaporation of surface water and baking of the earth, decreasing soil moisture.Â "We are talking about a 20-year period of drought-like conditions with an ever-increasing demand on water,"Â said Bernhardt.Â "These conditions are alarming, and particularly in the Lake Powell and Lake Mead region, it is the perfect storm."

This is part of a wider trend affecting hundreds of millions of people across the planet. As climate change wreaks havoc on the Earth's interconnected natural systems, drought and desertification are swiftly becoming the new normal, everywhere from the United States to Europe and Africa. Drought in Numbers, a 2022 report from the UN Convention to Combat Desertification, found that since 1970 weather, climate and water hazards have accounted for 50% of all disasters and impact 55 million people globally every year. The report also found that 2.3 billion people face water stress annually. Drought is also one of several factors that impacts land degradation, with between 20 and 40% of the world's land being classed as degraded, affecting half the world's population and impacting croplands, drylands, wetlands, forests and grasslands.

UNEPÂ

Drought in Numbers 2022 - UNCCD

Photo Mike BlakeÂ - Reuters for UNEP

Â