

More Than Half of World's Large Lakes Are Drying Up, Study Finds

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More than half of the world's large lakes and reservoirs have shrunk since the early 1990s, chiefly because of climate change, intensifying concerns about water for agriculture, hydropower and human consumption, a study published Thursday found.

An international team of researchers reported that some of the world's most important water sources — from the Caspian Sea between Europe and Asia to South America's Lake Titicaca — lost water at a cumulative rate of about 22 gigatonnes per year for nearly three decades. That's about 17 times the volume of Lake Mead, the largest reservoir in the United States.

Fangfang Yao, a surface hydrologist at the University of Virginia who led the study in the journal *Science*, said 56% of the decline in natural lakes was driven by climate warming and human consumption, with warming "the larger share of that."

Climate scientists generally think that the world's arid areas will become drier under climate change and wet areas will get wetter, but the study found significant water loss even in humid regions. "This should not be overlooked," Yao said.

Scientists assessed almost 2,000 large lakes using satellite measurements combined with climate and hydrological models.

They found that unsustainable human use, changes in rainfall and runoff, sedimentation, and rising temperatures have driven lake levels down globally, with 53% of lakes showing a decline from 1992 to 2020.

Nearly 2 billion people who live in drying lake basins are directly affected, and many regions have faced water shortages in recent years. (...)

Thursday's study found unsustainable human use dried up lakes such as the Aral Sea in Central Asia and the Dead Sea in the Middle East, while lakes in Afghanistan, Egypt and Mongolia were hit by rising temperatures, which can increase water loss to the atmosphere.

Water levels rose in a quarter of the lakes, often as a result of dam construction in remote areas such as the Inner Tibetan Plateau.

317 words

1. In your own words **summarize** the text (What does this study reveal? What are the causes and consequences?)
2. **Commentary:** Do you think scientists' warnings have been heard?