

Subscribe to Smithsonian magazine and get a FREE tote.



The 'Super' El Niño Has Arrived. Here's How It Might Affect the World's Weather and Economy

The naturally occurring climate pattern, characterized by warm surface water in the Pacific Ocean, that has just started could be one of the strongest ever recorded, according to experts

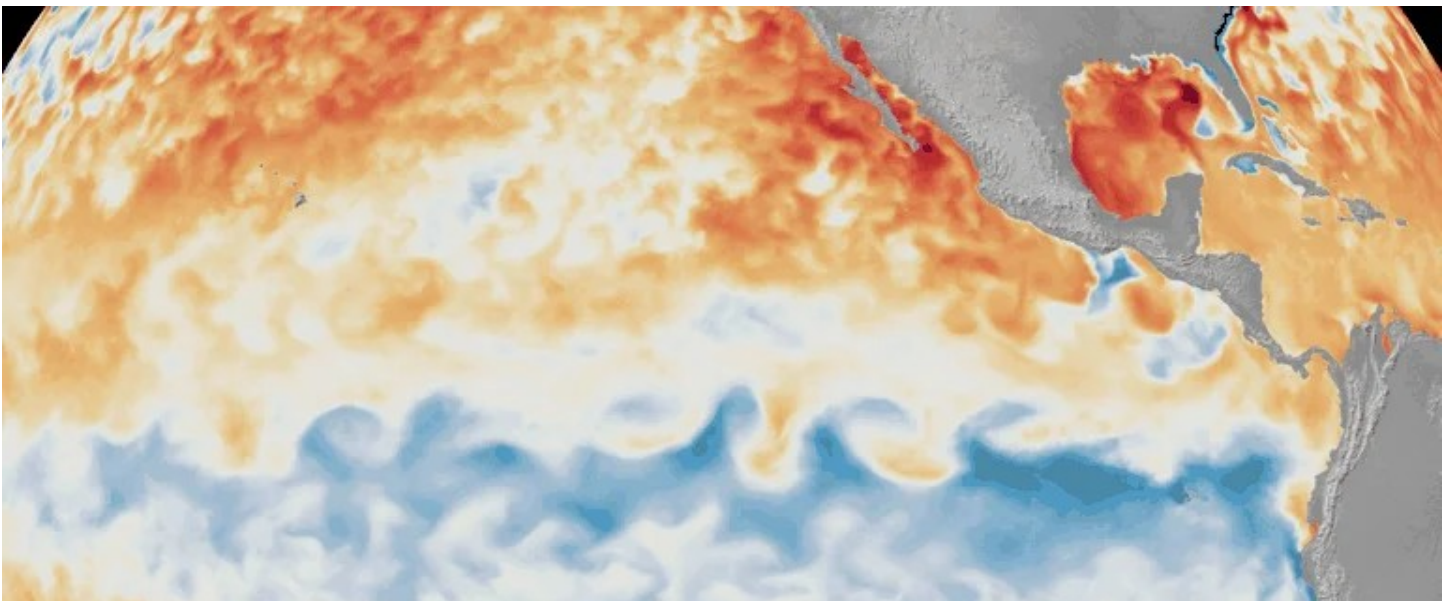


Sara Hashemi | Daily Correspondent

June 15, 2026 1:36 p.m.

 Share ▾

 Add as preferred source





Animation showing the surface water temperature changing in the Pacific Ocean from January 1 through June 8. NOAA Satellites

The forecasted El Niño—a mysterious but well-documented climate phenomenon—has officially begun, the National Oceanic and Atmospheric Administration (NOAA) announced on June 11.

Meteorologists expect it to evolve into one of the most powerful ones on record, and the event will likely bring about extreme weather worldwide and consequently affect the economy.

“We need to prepare for a potentially strong El Niño event, which will exacerbate drought and heavy rainfall and increase the risk of heatwaves both on land and in the ocean,” says Celeste Saulo, secretary-general of the World Meteorological Organization, in a statement.

Here’s what you need to know about the El Niño and what it might do in the coming months.

What is El Niño?

El Niño is a naturally occurring climate pattern characterized by warmer-

than-average surface water temperatures in the Pacific Ocean's tropical region, near the equator. In the United States, the events are usually declared when the temperature rises by more than 0.9 degrees Fahrenheit for at least five consecutive seasons, each lasting three months.

The warmer water leads to changes in the air pressure. That, in turn, causes trade winds that blow westward to weaken, allowing warmer water to spread farther east than normal and pool near northwestern South America.

The water's toasty temperatures typically peak around December. In fact, the weather event's original name—from South American fishers in the 1600s—was El Niño de Navidad, or “little boy of Christmas,” in Spanish.

The tepid water sits on the surface like a thick blanket, preventing the cooler, nutrient-rich water below from rising. It causes fish to die or migrate, disrupting coastal ecosystems.

Despite extensive U.S. records of El Niño events dating back to 1950, mysteries remain about the phenomenon. Scientists don't know exactly what triggers big shifts in the Pacific Ocean's waters and the winds above it. What's more, there's no fixed schedule for when these climate events occur. On average, El Niño takes place every two to seven years, and it typically lasts around 9 to 12 months.



Did you know? La Niña

When the surface waters of the tropical Pacific are cooler than usual, causing stronger east-to-west trade winds, the event is called La Niña. We experienced one in 2025 into early 2026.

What should you expect weather-wise?

Many people have unofficially dubbed this year's event a "super" El Niño. NOAA forecasters predict a 63 percent chance of it becoming "very strong" in November through January, which would make it "rank among the largest El Niño events in the historical record," per a June 11 advisory.

Some of the strongest include El Niños in 1982–1983, 1997–1998 and 2015–2016, reports Meghan Bartels at *Scientific American*.

"Each one is unique with its own imprint on our weather," says Ken Graham, director of NOAA's National Weather Service, in the agency's statement. Still, they do come with certain predictable patterns, which will bring about region-specific effects.

In North America, for instance, El Niños often push the narrow, fast-blowing bands of wind called jet streams toward the south. That means the southern part of the United States experiences winters that are wetter and cooler than usual, while the northern parts and Canada have warmer ones. El Niños also tend to reduce hurricanes in the Atlantic Ocean while giving them a boost in the Pacific, so the Southwest and Hawaii should brace

themselves for heavy storms, reports Seth Borenstein at the [Associated Press](#).

Globally, El Niño usually causes hot, dry weather in parts of South America, Southeast Asia and Australia, which can trigger drought conditions and raise the risk of wildfire, report [BBC News](#)' Matt McGrath, Simon King and Mark Poynting. India, meanwhile, generally has less monsoon rainfall during these events, and northeastern Africa might go from drought to heavy rain.

“The current El Niño is ... riding on top of a substantial amount of global warming,” [Adam Scaife](#), a climate scientist at the U.K.'s national weather service, the Met Office, tells BBC News. “This means that the actual temperatures in affected regions could well be unprecedented, as the warming from El Niño is being topped up by climate change.”

How will this affect the economy?

El Niño events can be costly affairs. The strong ones of 1982–1983 and 1997–1998 are estimated to have led to global income losses of \$4.1 trillion and \$5.7 trillion, respectively, according to a [2023 study](#).

“We know from observations that El Niños can cost the global economy trillions of dollars in damages and lost productivity,” [Justin Mankin](#), a climate variability researcher at Dartmouth College, tells [USA Today](#)'s Doyle Rice. “These costs accrue over years and disproportionately impact

countries whose weather and climate is most tied to El Niño.”

Additionally, “the current forecasts imply this [current event] could be the costliest El Niño on record,” he adds.

El Niño events disrupt fisheries, for example, as they alter the flow of nutrients in the ocean and cause marine heatwaves. “A notable example is the movement of the market squid to cooler waters to the north, away from established fisheries in California,” according to NOAA Fisheries. And overall temperature increases triggered by the weather pattern can slow American economic growth, Marshall Burke, a climate economist at Stanford University, tells the AP.

Scientists will continue to monitor the situation as it unfolds. One thing is for sure: El Niño is “one of the most important emergent features of the climate system beyond the seasons,” says Maike Sonnewald, a physical oceanographer at the University of California, Davis, to *Scientific American*.

You Might Also Like

With a Few Tweaks, the Country’s Favorite Sports Went From Pastimes to Part of the Fabric of Our Culture

June 15, 2026

'Ugliest Shark on the Planet': See the Elusive Goblin Shark, Filmed for the First

Time in Its Deep-Sea Habitat

June 15, 2026

When Clarence Birdseye Tasted the Trout That Had Been Frozen by Inuit Fishermen, It Changed the Way We Buy Food

June 15, 2026

When a Team of Meteorologists and Combat Pilots Set Out to Understand Thunderstorms, They Made Flying Safer for Everyone

June 15, 2026

They Were Just Having a Back-to-School Party in an Apartment Rec Room. Little Did They Know They Were Creating Hip-Hop

June 15, 2026



Sara Hashemi [Read More](#)

Sara Hashemi is a science writer and fact-checker currently based in New York City. Her work has appeared in *Sierra*, *The Body*, *Maisonneuve* magazine and more.

Get the latest stories in your inbox every weekday.

Email Address

Sign Up

Email Powered by Salesforce Marketing Cloud ([Privacy Notice](#) / [Terms & Conditions](#))

More about:

Climate Change

Climatology

Drought

Earth Science

evolving climate

Flood

Hurricanes

Natural Disasters

NOAA

Oceans

rain

Weather

