

Programa de Pós-Graduação em Divulgação Científica e Cultural

Prova de Inglês – Proficiência em Leitura

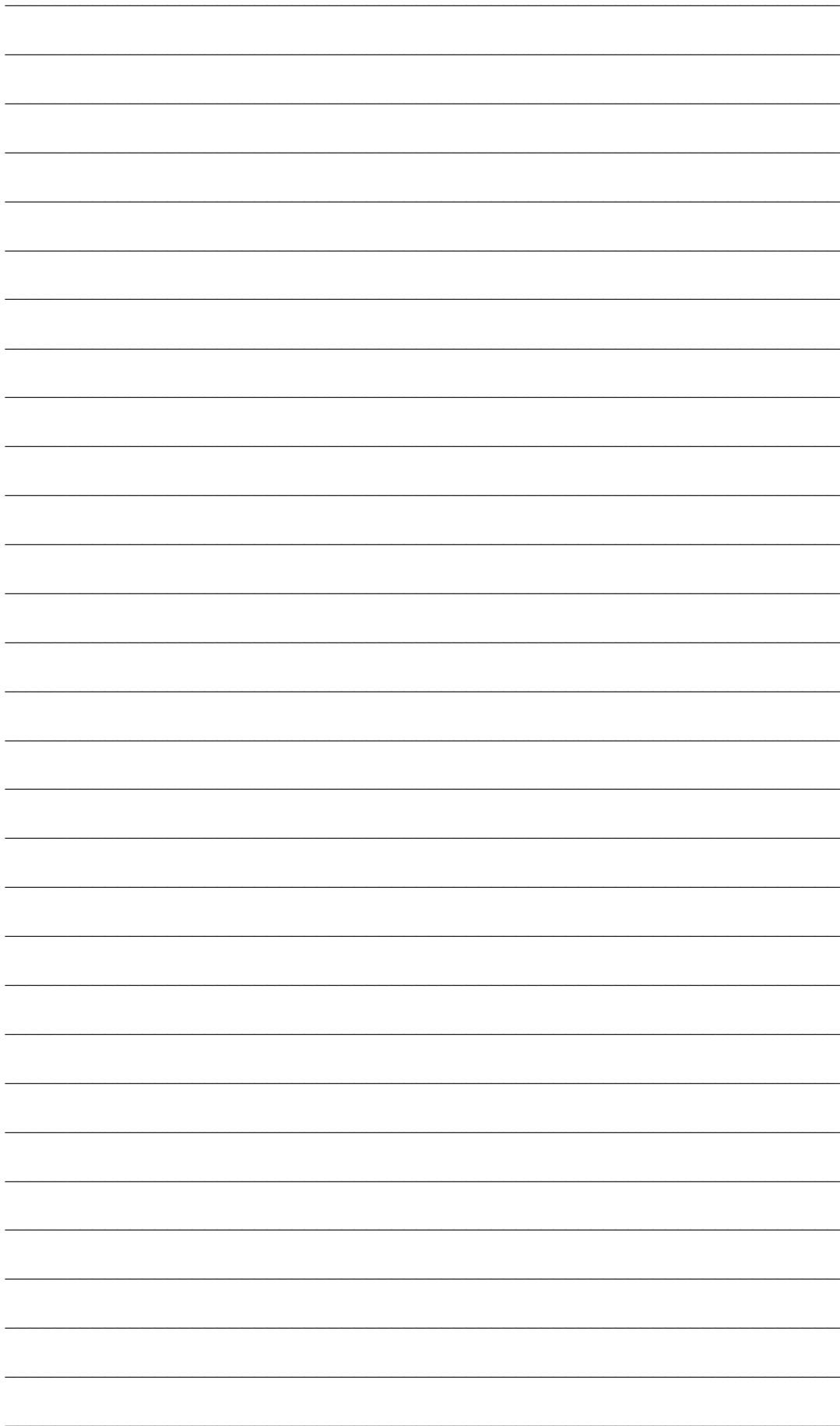
2026

O artigo "**Is this year's El Niño set to be an especially strong one?**" ** foi recentemente publicado pelo site da Max Planck Society, chamando atenção para a importância de esclarecimento de questões acerca de um tema que se tornou recorrente na mídia no ano de 2026, e que tem estimulado a ação de diferentes governos no mundo para políticas públicas de contenção de possíveis consequências. Leia atentamente o texto apresentado em anexo e responda às seguintes questões, em Português.

Questões:

- 1. A partir do artigo indicado, apresente pelo menos quatro consequências graves (sejam elas climáticas, sanitárias, ecológicas ou econômicas) associadas ao El Niño.**

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper has a slight shadow on the right side, suggesting it's resting on a surface.



2. O texto explica que o La Niña produz efeitos opostos aos do El Niño sob alguns aspectos. Assinale a alternativa que corresponde a essa afirmação no texto:

- A) Menor precipitação ao longo da costa leste da América do Sul. Chuvas intensas e generalizadas no Sudeste Asiático e no nordeste da Austrália. Amenização de furacões intensos no Atlântico.
- B) Maior precipitação ao longo da costa leste da América do Sul. Chuvas intensas e generalizadas no Sudeste Asiático e no nordeste da Austrália. Aumento da probabilidade de furacões intensos no Atlântico.
- C) Menor precipitação ao longo da costa oeste da América do Sul. Chuvas intensas e generalizadas no Sudeste Asiático e no nordeste da Austrália. Aumento da probabilidade de furacões intensos no Atlântico.
- D) Maior precipitação ao longo da costa oeste da América do Sul. Chuvas intensas e generalizadas no Sudeste Asiático e no noroeste da Austrália. Aumento da intensidade de furacões no Atlântico.

3. Sobre as condições que favorecem um El Niño especialmente forte, assinale a alternativa correta:

- A) Um El Niño é classificado como forte quando a temperatura da superfície do mar na costa oeste da América do Sul supera em mais de 0,5 °C a média de longo prazo.
- B) Além do acúmulo de água quente no Pacífico ocidental, a formação de um reservatório de água quente nas profundezas do Pacífico central que migra para leste e aflora junto à América do Sul torna provável um El Niño forte.
- C) O fortalecimento dos ventos alísios é a principal condição para a intensificação do El Niño, pois empurra a água quente em direção à costa peruana.
- D) A intensidade do evento pode ser prevista de forma confiável já no início do ano, quando se detecta a primeira anomalia térmica.

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<https://www.mpg.de/26855837/faqs-el-nino1>

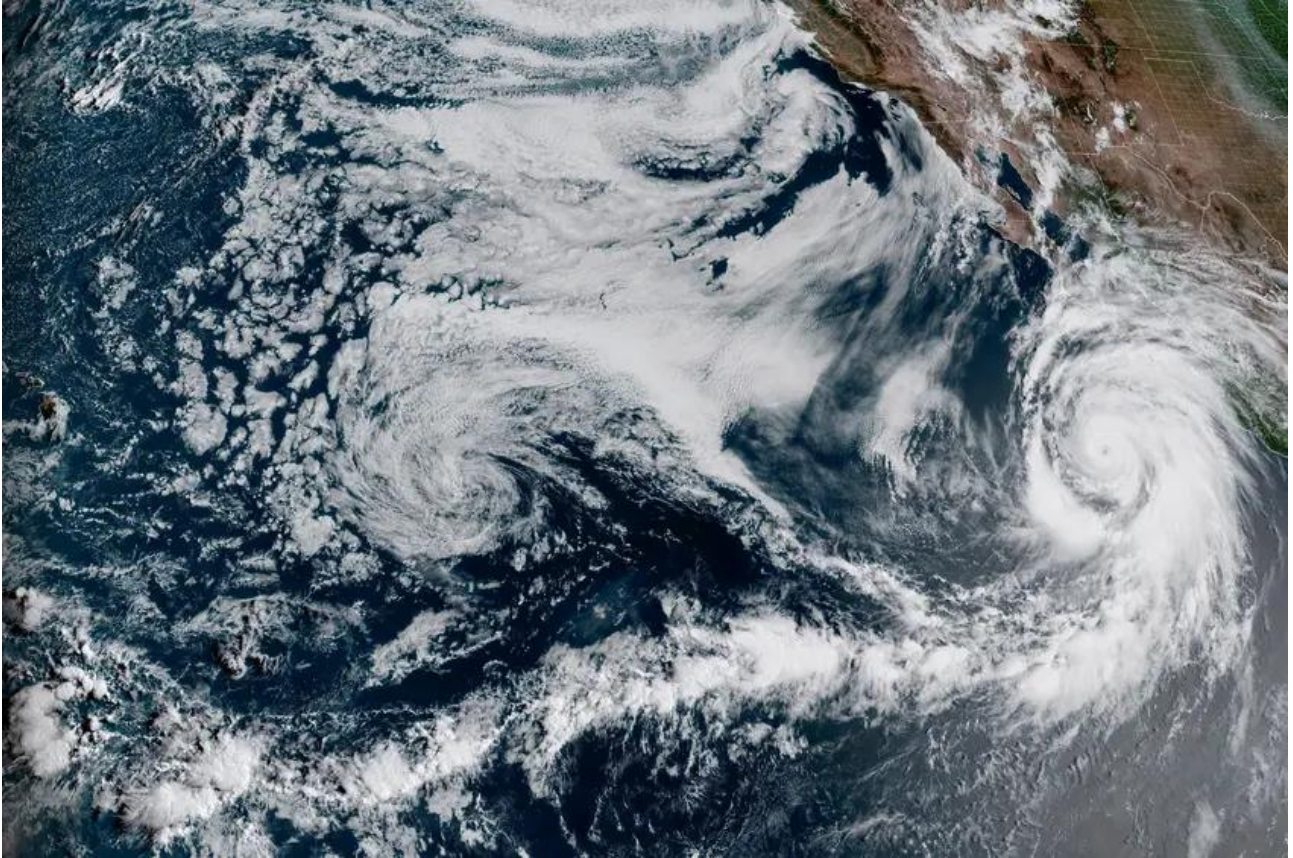
Is this year's El Niño set to be an especially strong one?

Questions and answers about the climate phenomenon and its consequences

July 01, 2026

By The Max Planck Gesellschaft Website Society

available online <https://www.mpg.de/26855837/faqs-el-nino1>



This satellite image from the National Oceanic and Atmospheric Administration (NOAA) shows Hurricane Hilary (right) off the Mexican Pacific coast. Scientists believe that a natural El Niño phenomenon, human-caused climate change, a persistent heat dome over the central United States, and other factors combined to drive Hilary's forceful passage across California and Nevada in August 2023.

© AP / picture alliance

How do El Niño and La Niña develop, and what happens during these events?

El Niño is a natural climate phenomenon in which the surface waters of the central and eastern Pacific become unusually warm. It occurs every two to seven years, typically towards the end of the year (hence the name, Spanish for “Christ child”)

El Niño is triggered when the trade winds, which normally blow from east to west across the Pacific, are weakened, for example by tropical storms. Under normal conditions, the trade winds push the Pacific's warm surface water westward. In the east, off the coast of Peru, cold, nutrient-rich water then rises from the depths, sustaining abundant fish stocks. When the trade winds weaken, warm water instead accumulates at the surface off the west coast of South America. Once

this water is more than 0.5 °C warmer than average, meteorologists speak of an El Niño. The warm water can also spread from the tropics into the subtropics.

El Niño is part of the El Niño–Southern Oscillation (ENSO), whose counterpart is La Niña. During a La Niña event, the trade winds intensify: warm water is driven further west across the Pacific, allowing more cold water to upwell along the west coast of South America. When surface water is more than 0.5 °C cooler than average, this is classified as La Niña.

What are the regional and global consequences of El Niño — climatic, health-related, ecological and economic?

El Niño and La Niña affect weather patterns worldwide, but their impact is especially pronounced in South America, Indonesia and Australia. The most serious consequences of an El Niño event include the following:

- Extremely heavy rainfall along the west coast of South America, which can cause flooding with numerous casualties and extensive damage.
- Off the Peruvian coast, the cool, nutrient-rich water fails to surface, causing fish stocks to decline and disrupting the fishing industry.
- Severe droughts occur in Indonesia and Australia. These hamper rice production and favour wildfires, particularly in Indonesia, where fires are often started deliberately to clear land but then run out of control, also causing heavy smoke pollution.
- The likelihood of intense hurricanes in the Atlantic decreases, although climate change is warming the Atlantic, which in turn raises hurricane risk.
- The likelihood of intense tropical cyclones rises in the Pacific (known as typhoons in the western Pacific and hurricanes in the eastern Pacific).
- In Europe, El Niño can bring cold late winters because it disturbs the polar vortex, a band of strong winds that encircles the cold air masses over the Arctic. This disturbance allows cold polar air to flow south and warm air to flow north.
- The monsoon weakens across South Asia. It was through this connection that the global impacts of El Niño and its underlying causes were first discovered: several El Niño events occurring in close succession in the early 20th century caused extreme droughts and devastating famines. This prompted the British meteorologist Sir Gilbert Walker to investigate the underlying causes, leading him to identify the El Niño–Southern Oscillation (ENSO), along with its causes and its link to the monsoon.

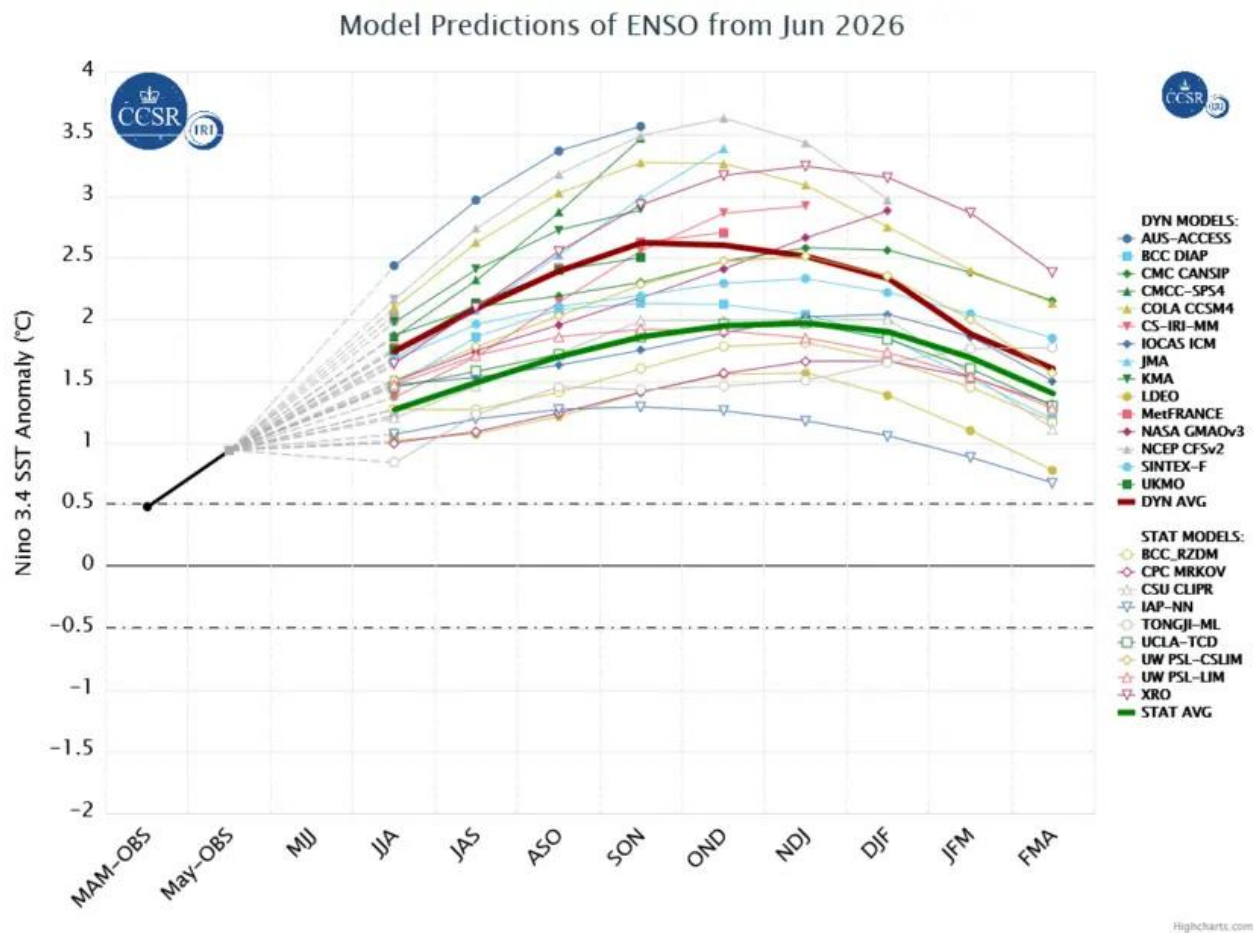
In some respects, La Niña has the opposite effects. As it represents an intensification of the climatological norm, its consequences are less pronounced:

- Less rainfall along the west coast of South America.
- Heavy, widespread rainfall across Southeast Asia and north-eastern Australia.
- The likelihood of intense hurricanes in the Atlantic increases.

Under what conditions does El Niño become especially strong?

An El Niño is considered strong when the surface water temperature off the west coast of South America is more than 1.5 °C above the long-term average. This is favoured not only by warm water accumulating in the western Pacific, but also by the formation of a reservoir of warm water in the

depths of the central Pacific. If this reservoir migrates eastward and rises to the surface off South America, a strong El Niño becomes likely.



Can it already be assessed whether El Niño will be especially strong by the end of 2026?

There are already signs that a strong El Niño will develop by the end of the year. In particular, meteorologists have observed a pronounced pool of warm water deep in the central Pacific, migrating eastward. The US National Oceanic and Atmospheric Administration (NOAA) currently puts the probability of a strong El Niño at just over 60 per cent. To date, El Niño events with a temperature anomaly of just over 2 °C have been observed. The strength of an El Niño event can only be reliably forecast towards the end of summer.

How does the strength of an El Niño event affect its impacts?

The intensity of rainfall depends heavily on the temperature of the sea surface over which it forms, since a warmer atmosphere holds more moisture and higher temperatures drive the water cycle more vigorously. Rainfall along the west coast of South America is therefore particularly heavy during a strong El Niño.

The intensity of tropical cyclones likewise depends on the sea surface temperature over which they form, since cyclones draw their energy from the ocean. This is why typhoons in the Pacific also become more destructive during a strong El Niño.

In many cases, a strong El Niño does not so much intensify its effects as make them more likely. This applies, for example, to the cold late winters that El Niño can bring to Europe. As with many meteorological developments, whether this actually happens depends on numerous factors, of which El Niño is only one. A strong El Niño, however, makes it more likely that its influence will prevail.

What is known about how El Niño will change under climate change?

Studies using high-resolution climate models that have examined this question predict that human-caused climate change could generally intensify El Niño events in the second half of this century. However, this question remains the subject of ongoing research, in which the Max Planck Institute for Meteorology is also involved.