

El Nino

Super El Niño is evolving: Models predict terrifying climate pattern will persist into early 2027 - Daily Mail

El Niño is here, and it's already looking like it could be 'mind-blowing' - CBC

We are waiting with bated breath': experts alarmed as BoM says gathering El Niño could be strongest on record - Guardian

El Niño is warm phase of a naturally occurring climate pattern known as the El Niño-Southern Oscillation (ENSO)

La Niña is the cold phase

Between these extremes lies a third state called ENSO-neutral

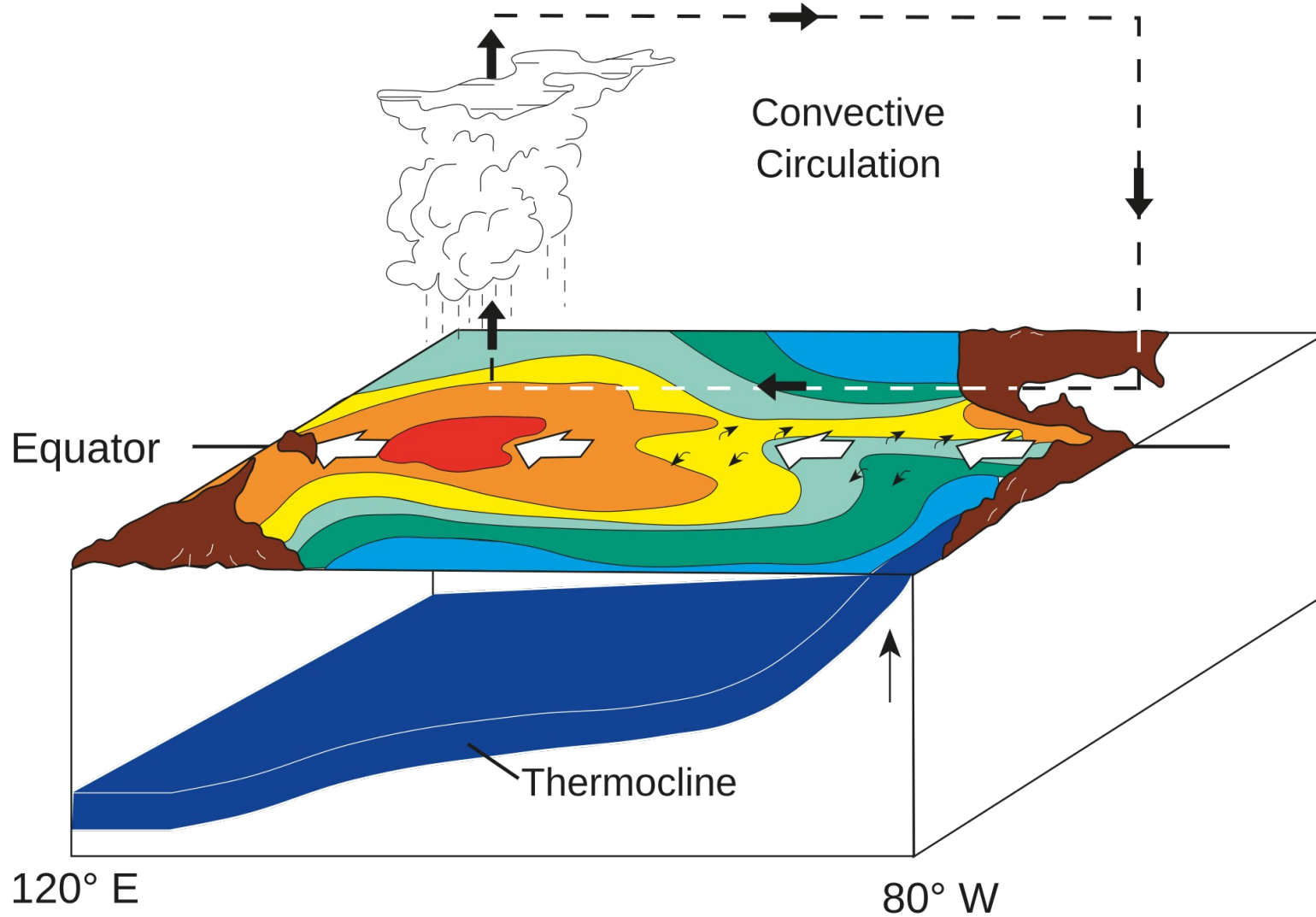
El Niño is characterized by unusually warm ocean surface temperatures in the central and eastern Pacific which happen when easterly trade winds become weaker.

The name originates with Peruvian fishermen and sailors who noticed a warm current, associated with reduced fish catches, and named it El Niño (“the Christ Child”), likely because it typically became noticeable around Christmas .

El Niño generally begins developing between March and June and reaches peak intensity between November and February.

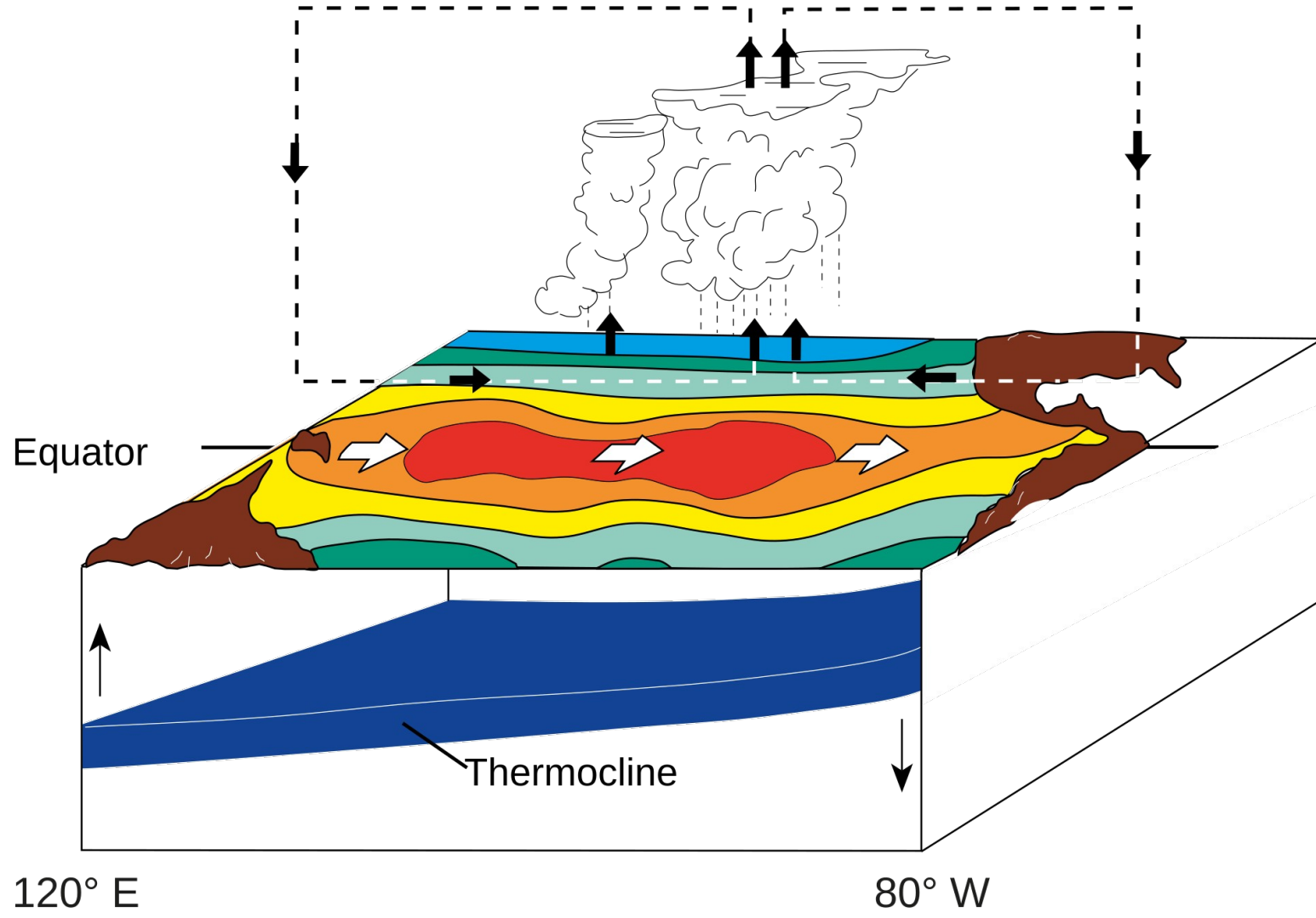
El Nino typically lasts up to about about 18 months

Normal Conditions



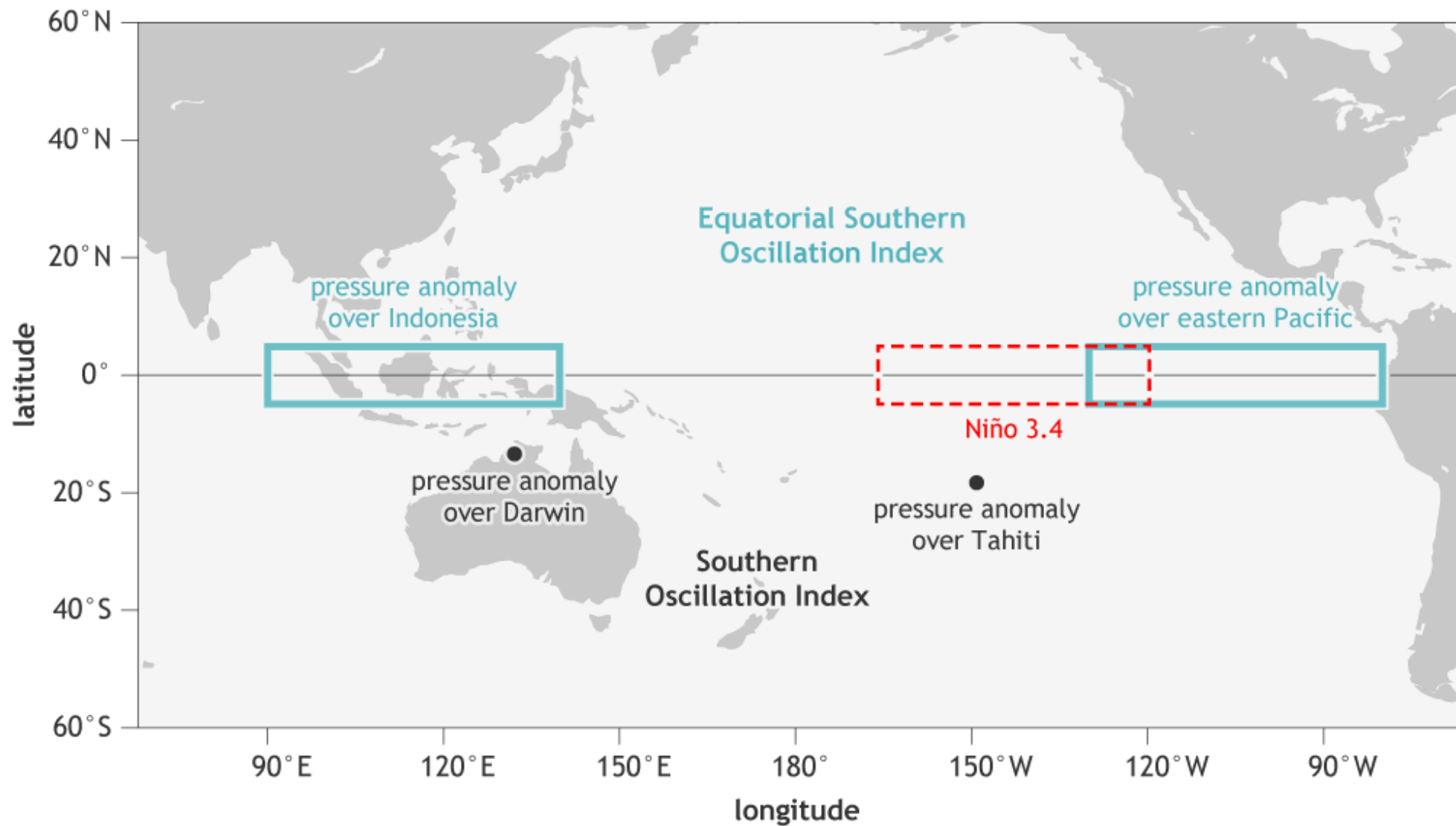
- ENSO normal state. Normal equatorial winds warm as they flow westward across the Pacific. Cold water is pulled up along west coast of South America. Warming water is pushed toward west side of Pacific. Sea surface is warm in the west. Hot air rises in western Pacific, travels eastward and cool air descends on South America.

El Niño Conditions



El Niño state. Sea surface is warm in central and eastern Pacific. Less cold water is pulled up along west coast of South America. Hot air rises in central Pacific, travels east and west before cooling and descending.

ENSO indexes

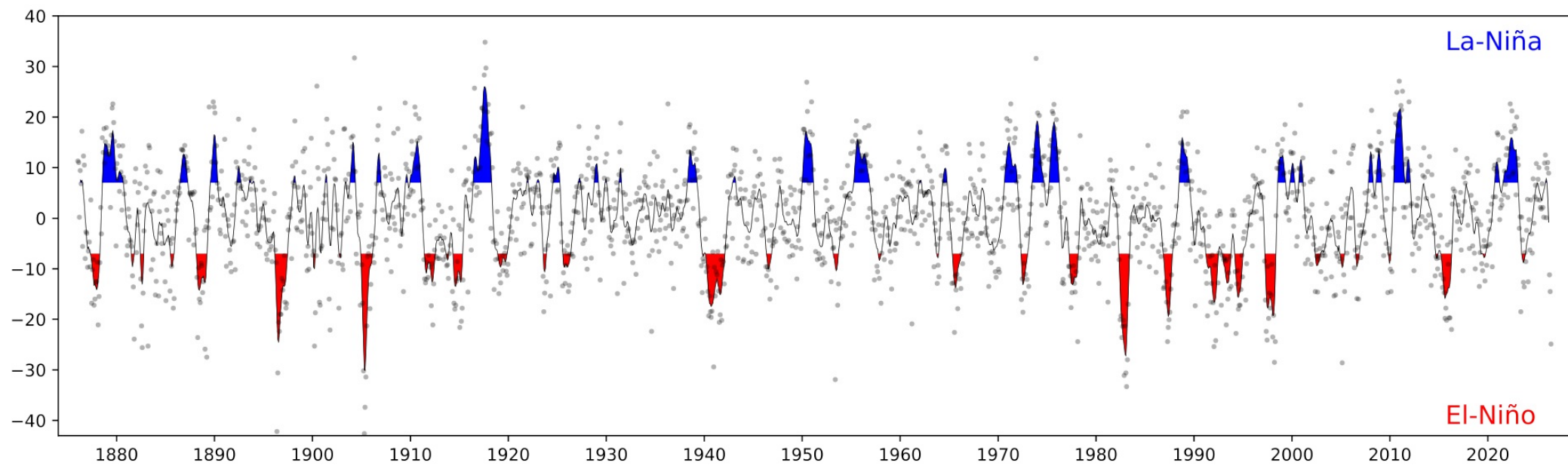


Since the 1980s, the dominant approach to measuring El Niño has been the use of the Oceanic Niño Index.

Scientists calculate the Sea Surface Temperature Anomaly in a region of the Pacific called the Niño 3.4 region. When computed over a three-month average, this becomes the Oceanic Niño Index (ONI).

Recently due to global warming, a newer metric of measurement called the Relative Oceanic Niño Index (RONI) has gained ground.

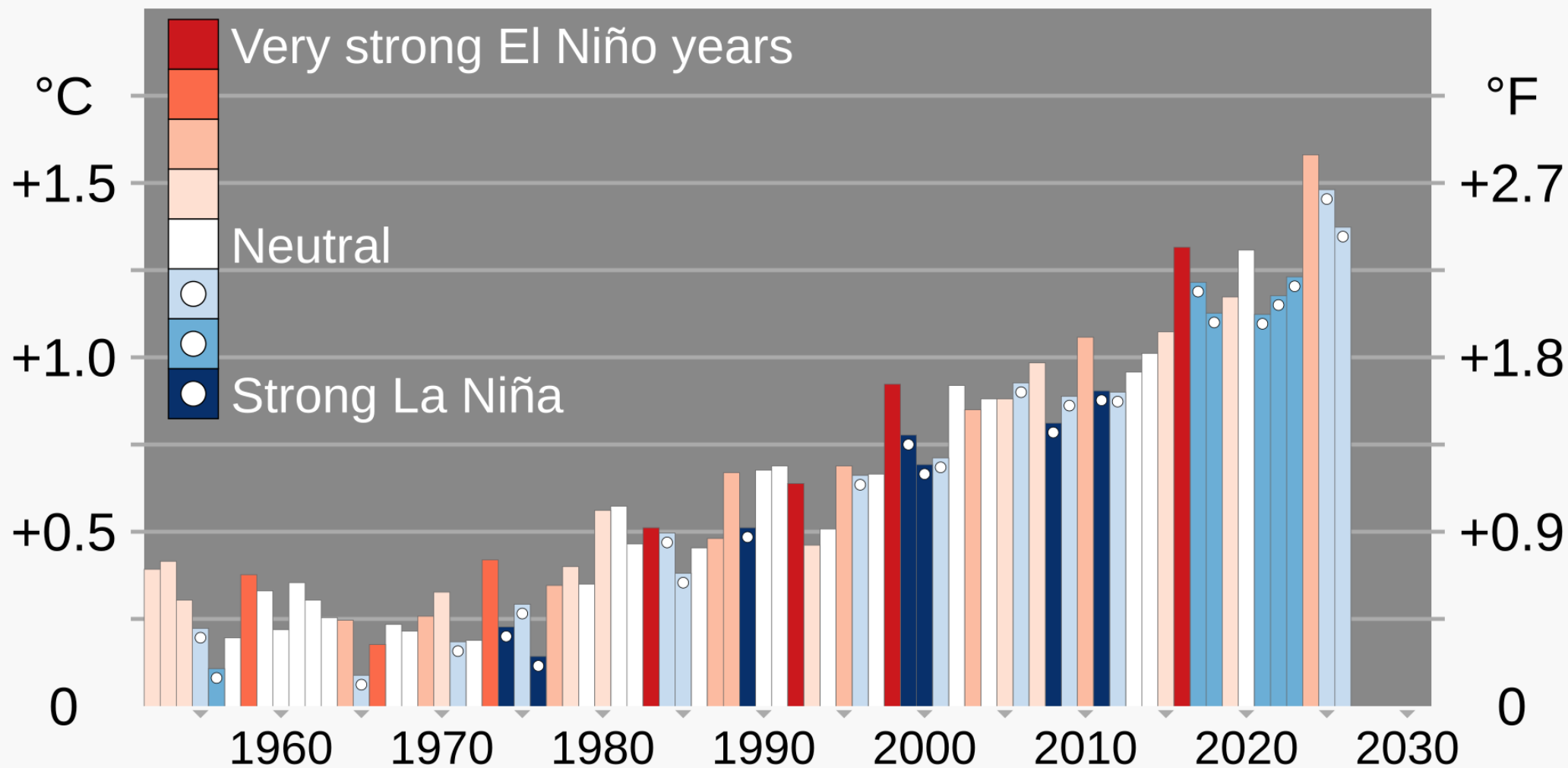
This measures relative warming, not just absolute warming, helping assess whether a warming event is ENSO-driven or mostly due to global ocean warming.



WMO -There is no evidence that climate change increases the frequency or intensity of El Nino events.

It can amplify associated impacts because a warmer ocean and atmosphere increase the availability of energy and moisture for extreme weather events such as heatwaves and heavy rainfall.

Global average temperature change



Temperature data from HadCRUT: average of previous July through June of indicated year

The effects of each El Niño/La Niña event vary depending on the intensity, duration, time of year when it develops, and how it interacts with other climate mechanisms.

Not all regions of the world are affected, and even within a region, impacts can be different.

Even when ENSO is neutral, extreme weather can still occur.

The strength of an ENSO event is highly significant – whether it is classed as weak, moderate, strong or very strong.

WMO does not use the term Super El Niño or La Niña.

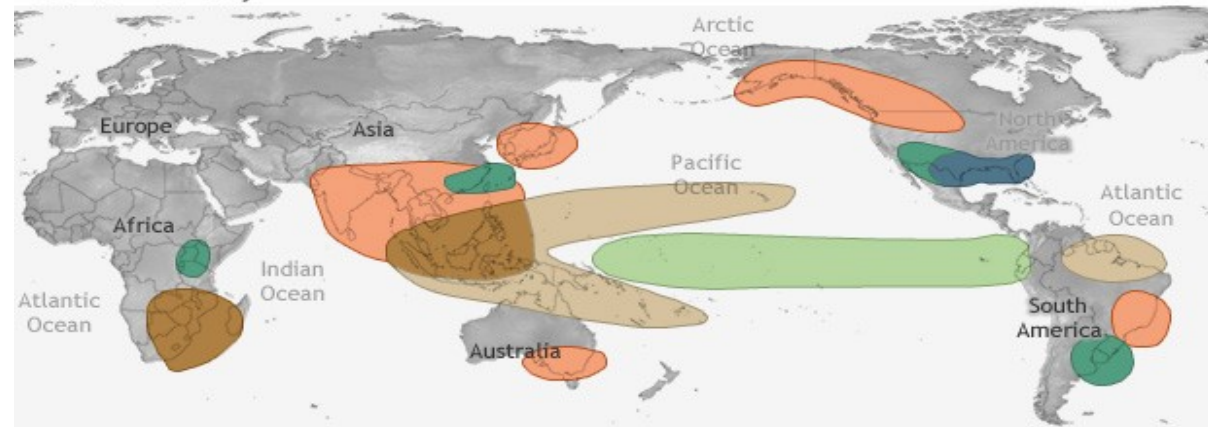
Typically have a warming effect on the global climate

The most pronounced impacts are in the year following development.

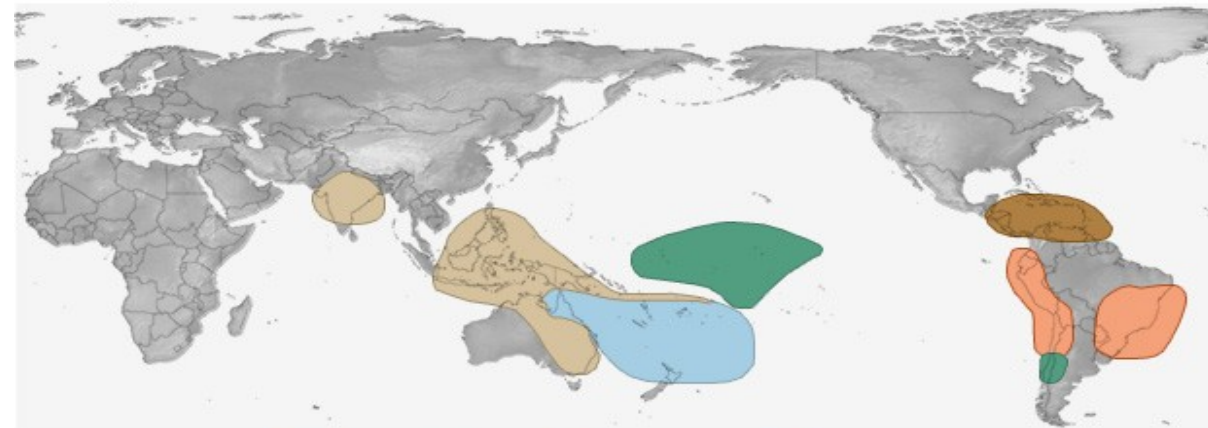
2024 was the hottest year on record because of the combination of the powerful 2023–2024 El Niño and human-induced climate change from greenhouse gases.

EL NIÑO CLIMATE IMPACTS

December-February



June-August



El Nino developing likely to be the strongest ever.

Guess peak Nov 26 to Jan 27

Guess weather impacts will bite 2027

Guess is it will have worse impacts than the
biggest El Ninos of all time 1997-1998 and 2015-
2016

2015/2016 El Nino

Australia

Australia's third-driest spring on record.

Reduced crop growth.

Reduced rainfall in northern and western Australia benefited the mining industry by reducing weather-related interruptions.

Contributed to the most severe coral bleaching event ever recorded on the Great Barrier Reef.

Early start to the 2015–16 bushfire season.

Large areas of the Tasmanian Wilderness World Heritage Area were damaged, including forests that may not have burned for centuries.

Africa

Brought above-average rainfall to East Africa.

The Southern African Development Community declared a regional drought disaster in March 2016.

North America

Northern New York State and southern Ontario experienced exceptional early winter snowfall.

Above-average rainfall across the south-eastern and south-central United States.

Heavy rain reached parts of California, after years of drought, bringing local flooding and mudslides.

Missouri received around three times its normal rainfall during November and December 2015.

South America

Northern South America, including parts of Venezuela, experienced drought.

Uruguay and Paraguay received exceptionally heavy rainfall.

South-eastern Brazil suffered severe drought, unusually high temperatures and falling river and reservoir levels.

Southern Brazil experienced prolonged thunderstorms and severe flooding.

Several rivers reached their highest levels for decades.

Thousands of people were left homeless.

Fires increased across the southern Amazon Basin.

Pacific Islands

Severe drought affected many Pacific island nations.

Palau, the Federated States of Micronesia and the Marshall Islands declared emergencies because of extreme drought.

Around 4.7 million people were affected.

Tuna stocks migrated eastwards from Papua New Guinea to waters around Kiribati. Bumper catches.

Coral cover around Kiritimati (Christmas Island) declined by up to 90%.

Sea levels around western Micronesia fell by 1.8–2.7 metres.

Philippines

The 2015 rainy season began later than normal and was weaker.

Air temperatures were above average.

About 85% of provinces experienced drought.

Many rice and maize crops failed.

Several provinces declared states of calamity.

Vietnam

Severe drought affected the Mekong Delta .

Saltwater penetrated far inland.

Agricultural damage was the worst experienced for around 100 years.

United Kingdom

The winter of 2015–16 was exceptionally mild.

Serious flooding occurred across many parts of the UK. Storm Desmond.

The winter ranked as the second warmest in the Central England Temperature record, which extends back to 1659.

It was also the ninth wettest winter in the England and Wales rainfall record, which began in 1766.

The strong El Niño is thought to have contributed to these unusually warm and wet conditions.

What likely to happen with “Godzilla” El Nino

Likely to be the strongest ever.

Guess peak Nov 26 to Jan 27

Guess weather impacts will bite 2027

Guess is it will have worse impacts than 2015-2016

Teleconnections are long-distance links in the climate system, where changes in one part of the world influence weather in another.

Met Office - El Niño takes place thousands of kilometres away so its influence on UK weather is indirect.

While there are sometimes links between El Niño events and European weather patterns, these are far from guaranteed.

The UK's weather is shaped by many competing factors that affect the Atlantic jet stream and other large-scale atmospheric patterns.

Too early to draw firm conclusions about what this developing El Niño might mean for future UK seasons.

Boring statement which will not sell papers or get views on social media.