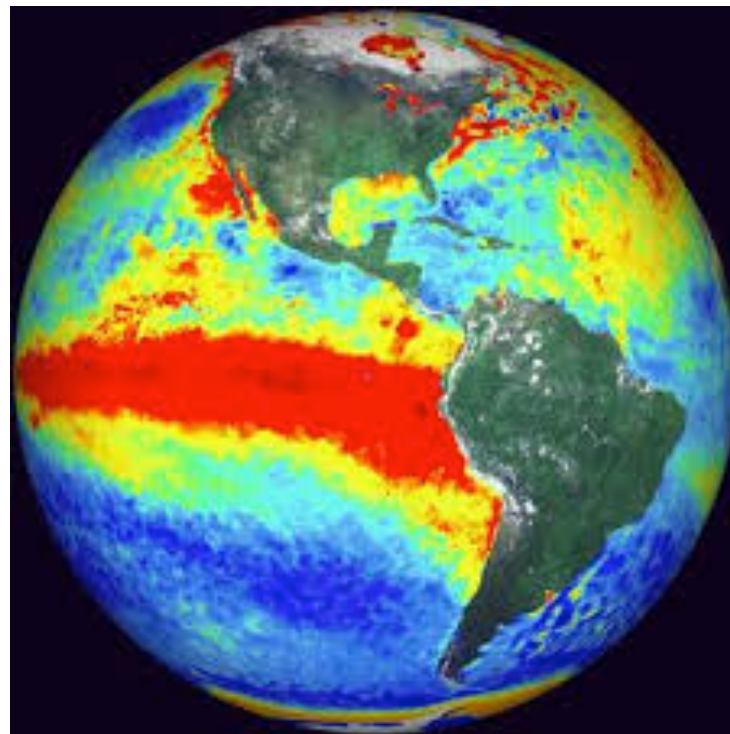


# El Nino and La Nina: A Weather Phenomenon



## What is El Nino?

- El Nino means "little boy" in Spanish and El Nino is the powerful climate change that occurs about every two to seven years.
- Water near the equator warms up to a higher temperature, which causes the air above it to warm up too. This warmer air and water moves east.

## Changes in Weather

El Nino can cause wild weather on the west coast.

### For example:

- Winds over the Pacific Ocean can become violent and form hurricanes
- Rainstorms and unusually high waters can cause flooding
- Huge waves that pound into the seaside cliffs

# El Niño

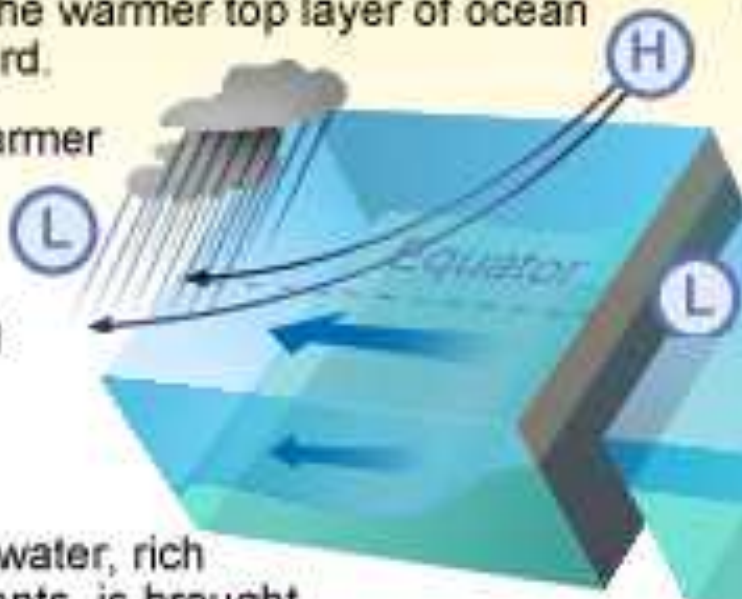
The term El Niño was originally used by fishermen along the coasts of Ecuador and Peru to refer to a warm ocean current that typically appears around Christmastime and lasts for several months. Areas affected are highlighted on the map at right.



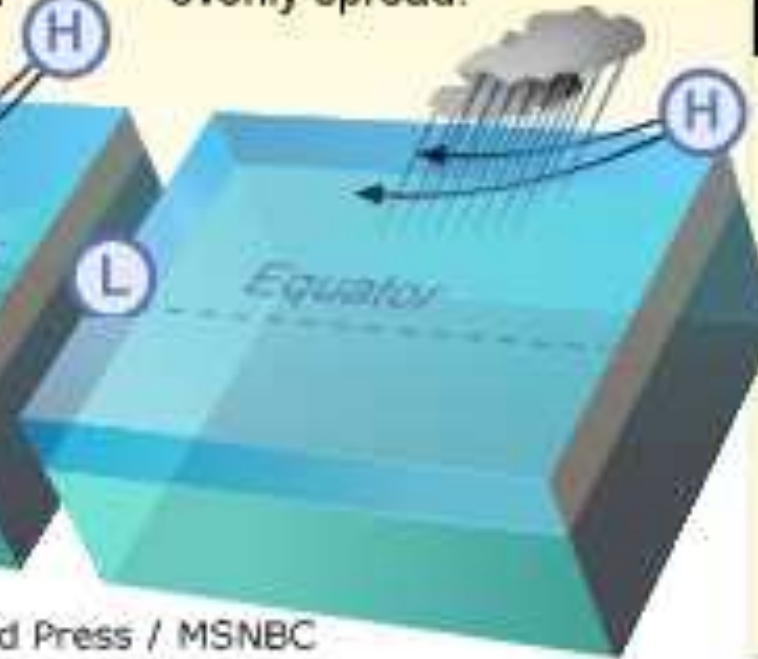
**NORMAL YEAR** Wind rushes from the high-pressure area in the east, taking the warmer top layer of ocean westward.

The warmer water heats the air, causing rainfall.

Colder water, rich in nutrients, is brought closer to the surface.



**EL NIÑO YEAR** Air pressure not as high, winds not as strong. Warmer layer of ocean stays evenly spread.



## El Niño's effects

### Western Pacific

▣ Droughts

### Eastern Pacific

▣ Flooding

▣ Fish stock depleted

▣ Warmer winter in Canada, more storms in southern U.S.

U.S. effects

Associated Press / MSNBC

El Niño Diagram

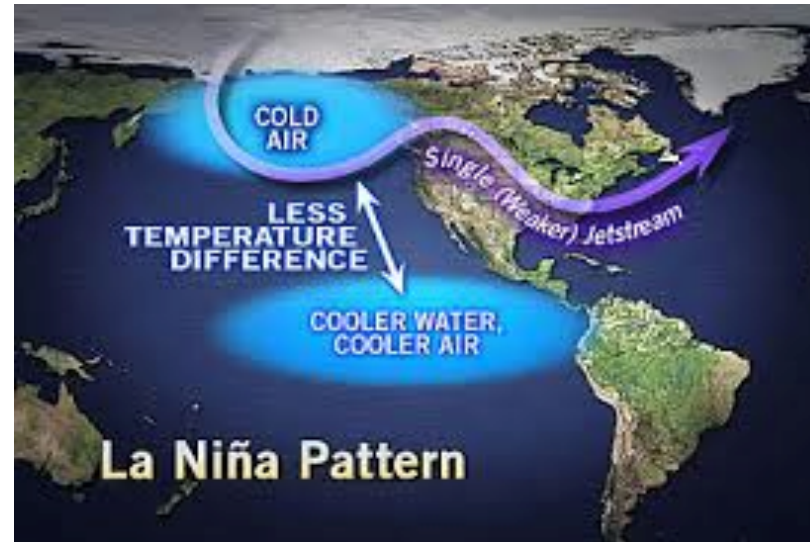
# El Nino Impact

El Nino can also cause:

- Droughts in Southeast Asia and Australia
- Wildfires in Australia and Malaysia
- Fishing shortages and crop failures
- Mudslides

## La Nina

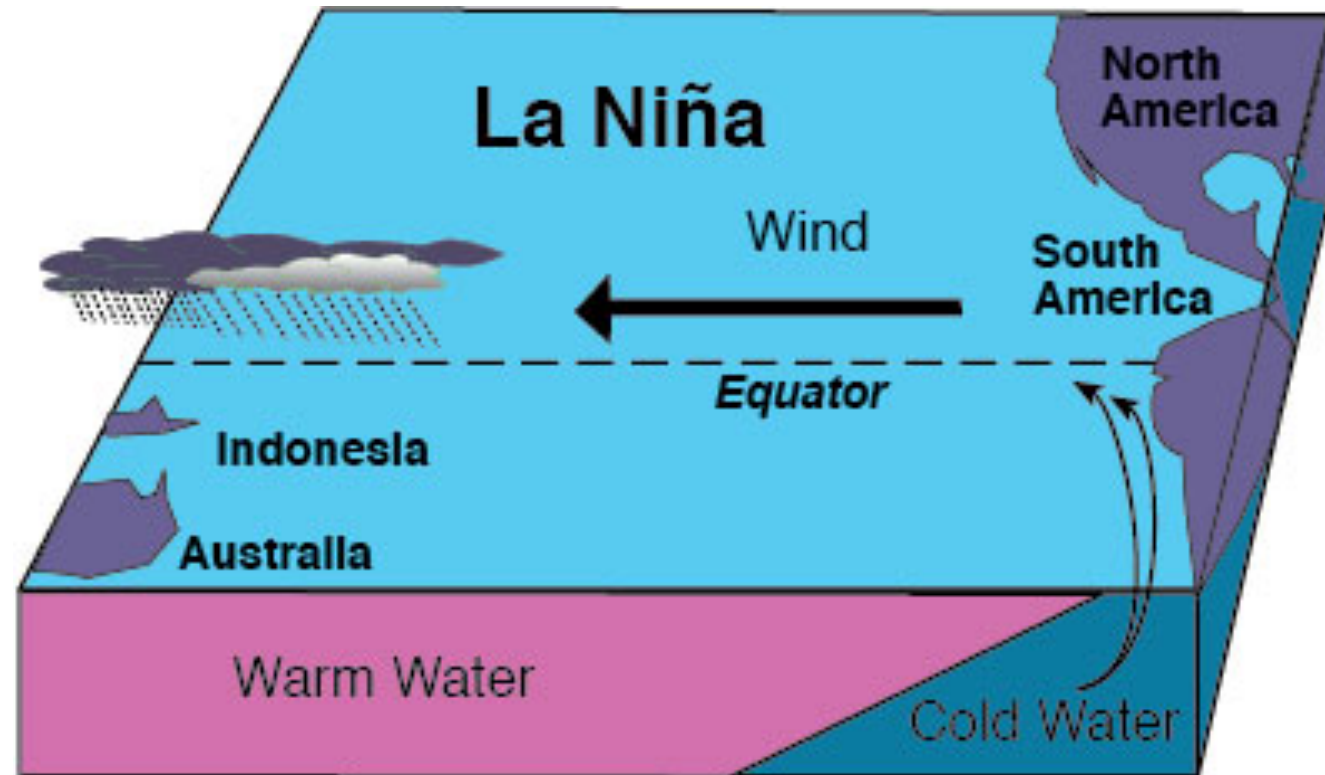
- La Nina also changes world weather.
- La Nina is what occurs when the ocean waters are cooler than normal
- These occur about half as often as El Nino years



## Impact of La Nina

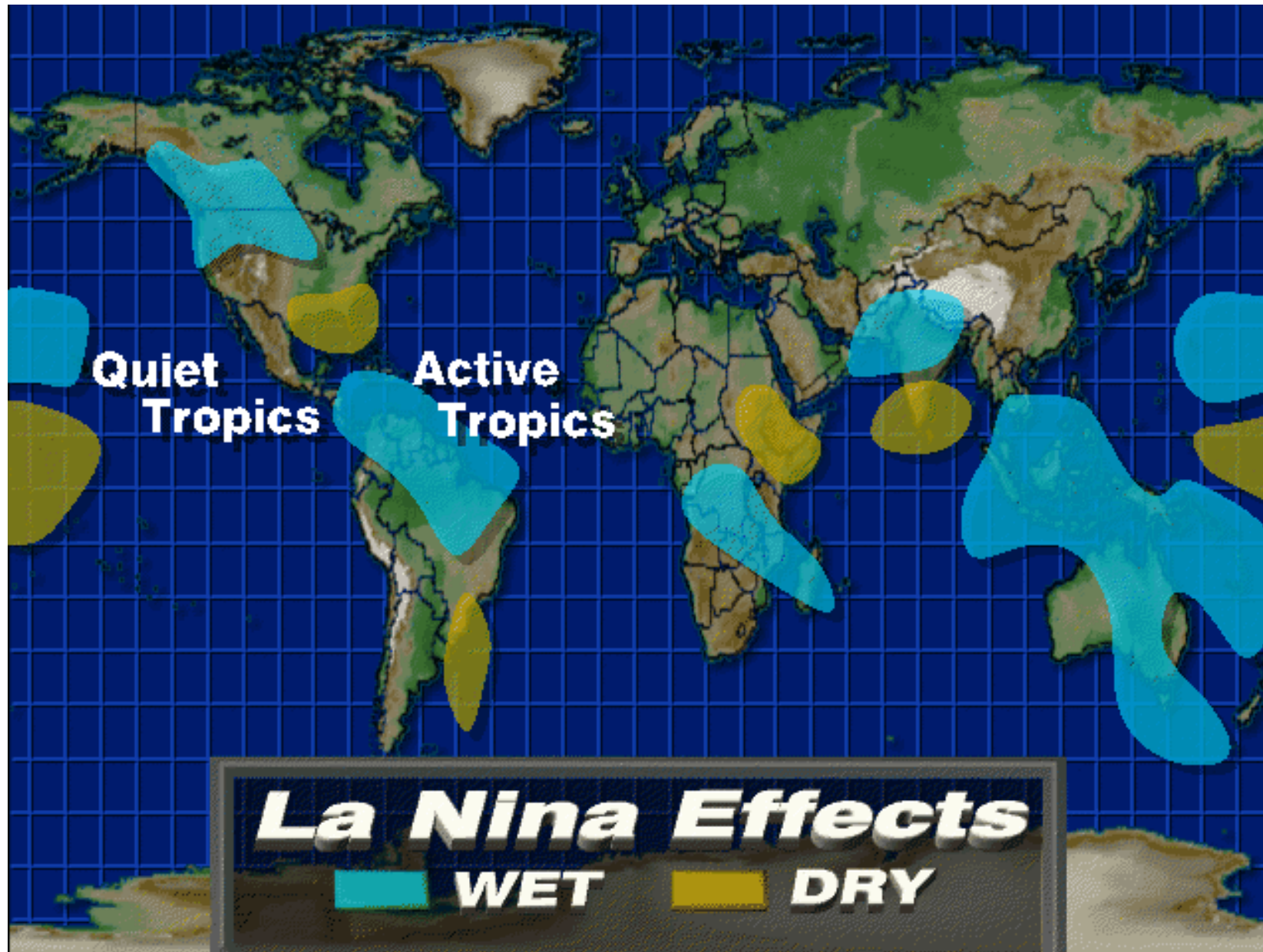
- La Nina weather patterns are almost the opposite of El Nino.
- La Nina brings wetter weather to areas that are usually very dry during El Nino
- The effects of La Nina are usually less extreme

## La Niña diagram



Winds push from east to west and push wetter weather to the Pacific region; drier weather in the west coast of the US.





Compare and contrast the weather phenomena in your science notebook:

El Nino	La Nina

## Review:

- El Nino and La Nina

- The Ocean and Weather: El Nino and La Nina

- El Nino and La Nina Animation

- Weather Wiz Kids-El Nino