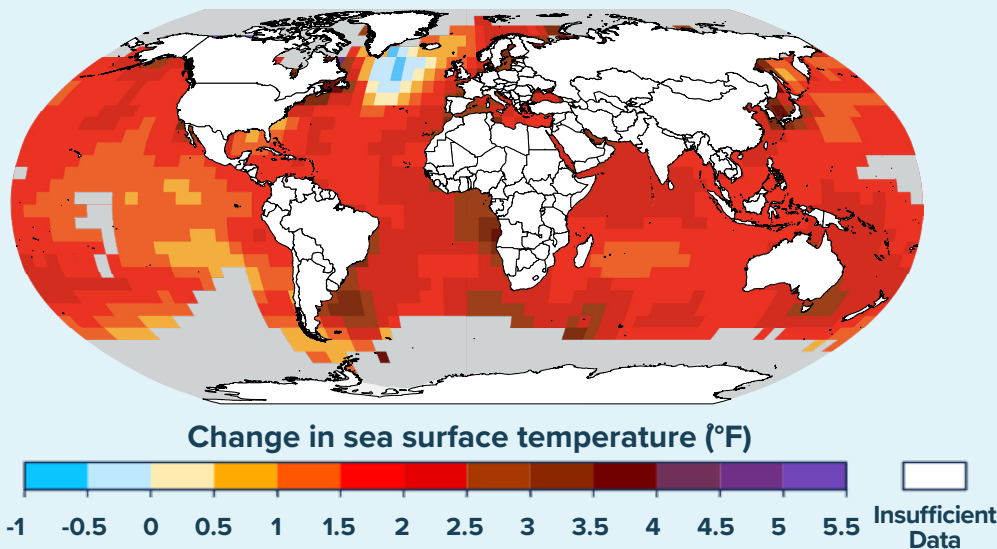


Climate Change & Ocean Impacts

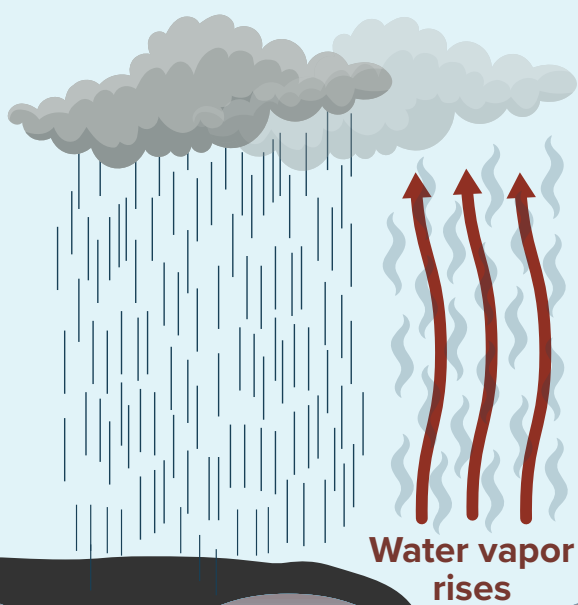
As the climate warms,
sea surface temperatures increase.



Since 1980, the ocean has absorbed 90% of the extra heat from climate change, which has led to increased ocean temperatures.

Covering about 70% of the Earth's surface, the ocean has a two-way relationship with weather and climate. Climate change influences many properties of the ocean and the ocean influences weather on local to global scales.

Warmer sea surface temperatures contribute to increases in heavy precipitation, hurricane intensity, and marine heat waves.



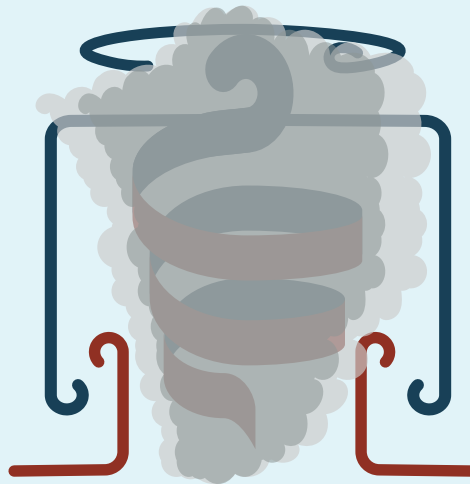
HEAVY PRECIPITATION

Warm sea surface temperatures lead to more atmospheric water vapor.

RISK

for heavy rain events has increased due to water vapor that feeds weather systems, producing precipitation.

Rising warm air drives hurricane formation



Warmer surface water fuels stronger storms

HURRICANES

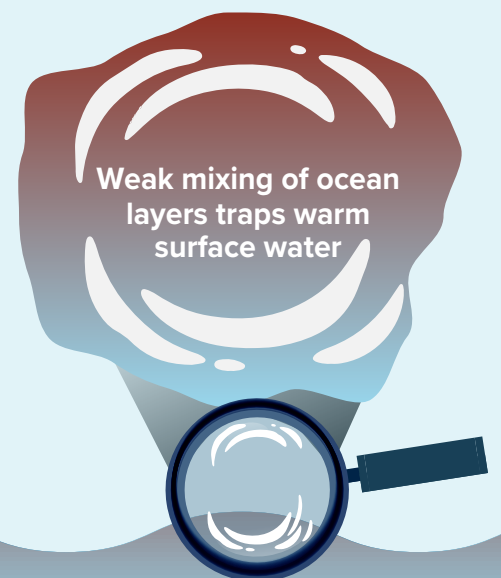
Warm sea surface temperatures drive tropical cyclone formation and behavior.

INTENSITY

of cyclones has increased over the past 30 years.

8 out of 10 most active years since 1950 have occurred since the mid-1990s.

Short-term spikes in sea surface temperatures create **marine heat waves**



MARINE HEAT WAVES

Marine heat waves along U.S. coasts have become more widespread and severe.

DISRUPTION

of ocean ecosystems has increased due to these marine heat waves. This disruption can cause harm to ocean creatures—particularly those that are stationary, such as coral.

