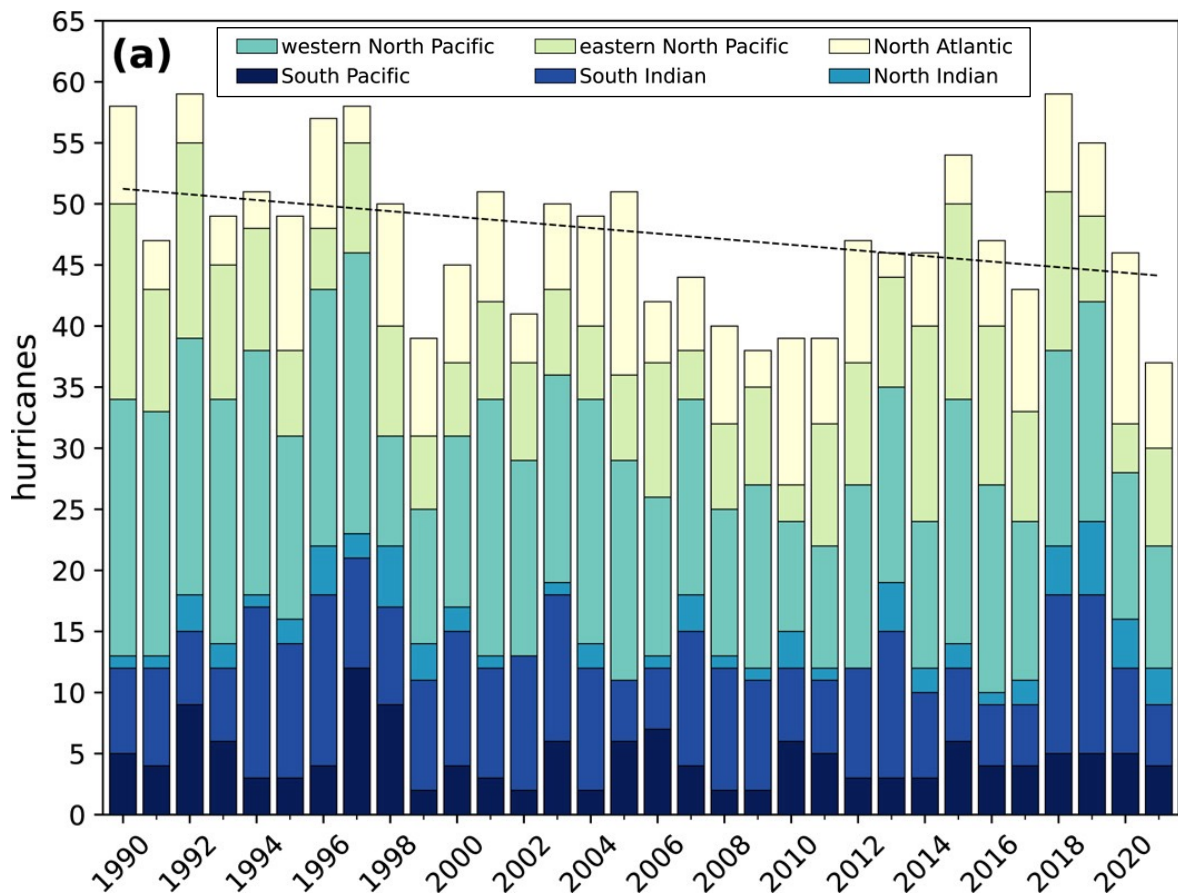


# Trends in Global Tropical Cyclone Activity: 1990–2021



Global hurricane formations during 1990–2021, in six tropical cyclone basins. Dashed lines represent 1990–2021 linear trends.

## Objective

It is important to detect any observed trends in global tropical cyclone (TC) activity to understand the potential influence of climate change during the historical period. We investigate global trends in TC activity over the last three decades, which were marked by largely consistent observational platforms.

## Results

Global hurricane counts and Accumulated Cyclone Energy (ACE) have significantly decreased since 1990, driven primarily by a downturn in western North Pacific TC activity, and likely due to a trend toward more La Niña-like conditions.

## Impact

This research indicates that modes of climate variability can play an important role in driving changes in global TC activity.