



**Advisory Board Research Showcase**  
29<sup>th</sup> January 2019

# Natural Catastrophes and Climate

Centre for  
**Risk Studies**



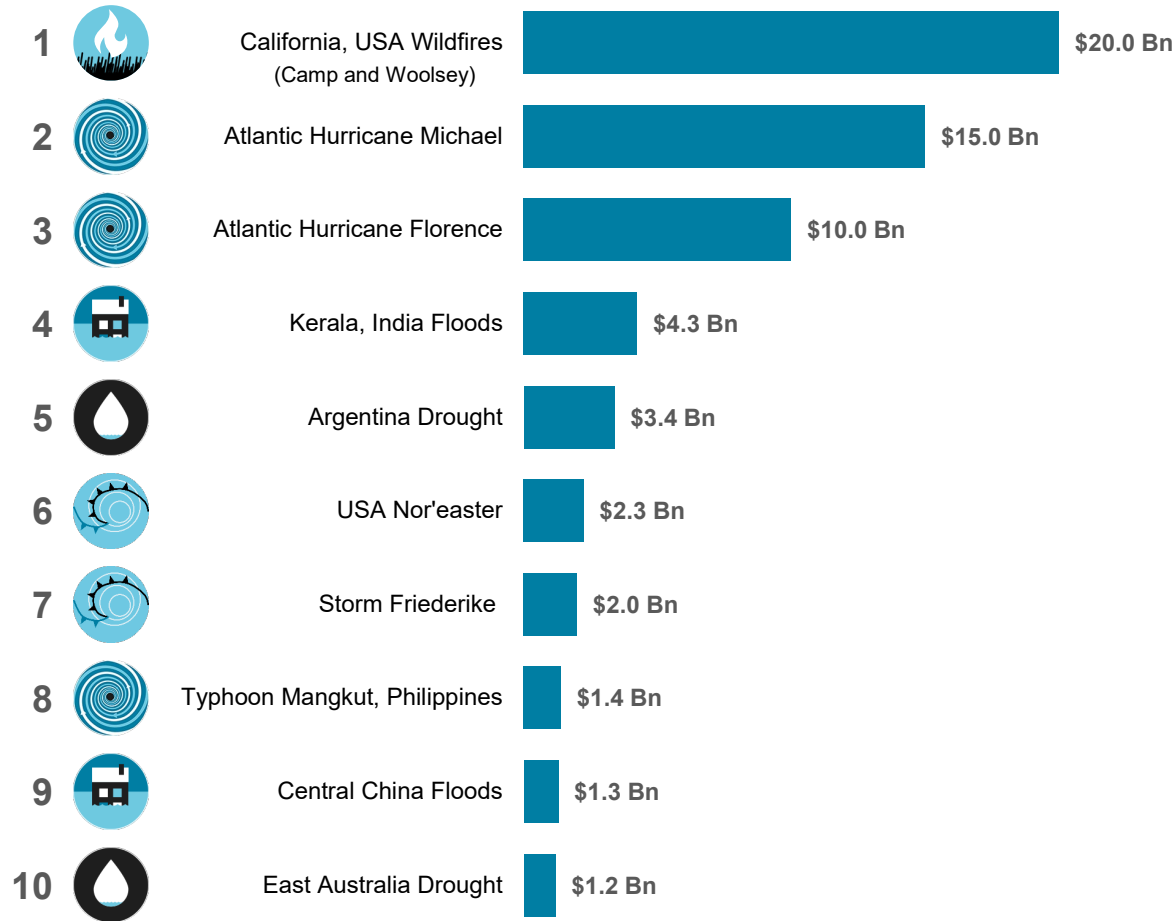
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Oliver Carpenter  
Research Assistant  
Cambridge Centre for Risk Studies

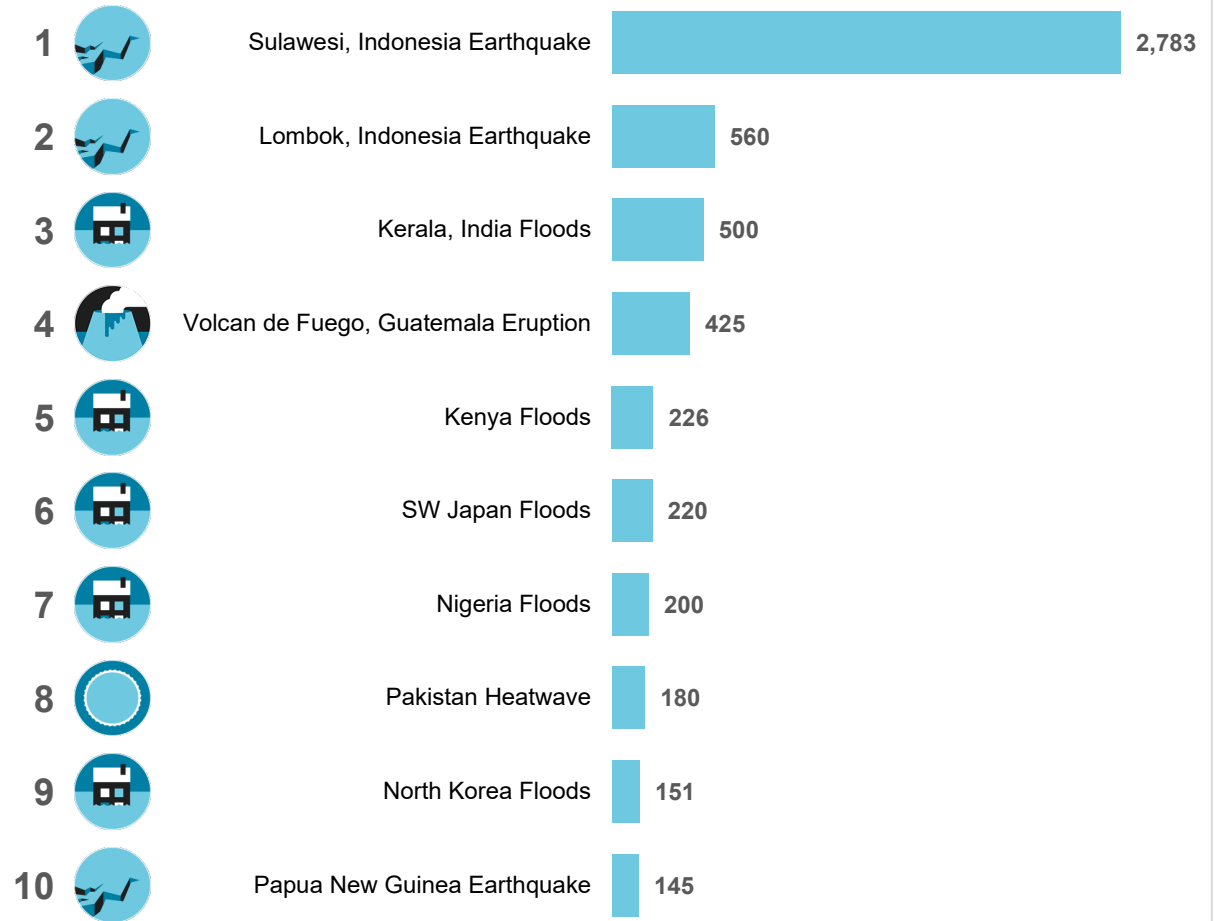


# Top 10 Global Natural Catastrophes 2018

## Economic Loss (preliminary estimates)



## Fatalities



Data from EM-DAT (CRED, 2018)



# Geophysical Hazards



Earthquake

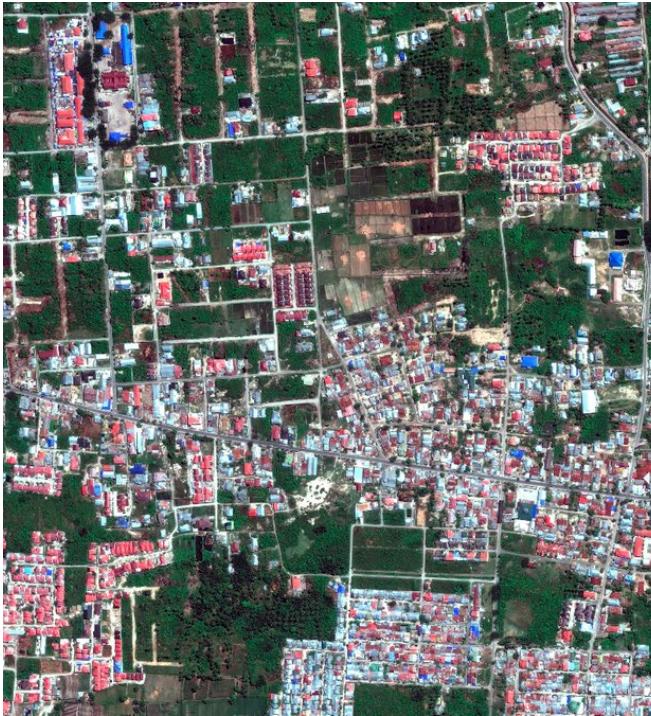


Tsunami



Volcanic  
eruption

**Liquefaction during the Sulawesi Earthquake, Indonesia**  
28<sup>th</sup> September 2018

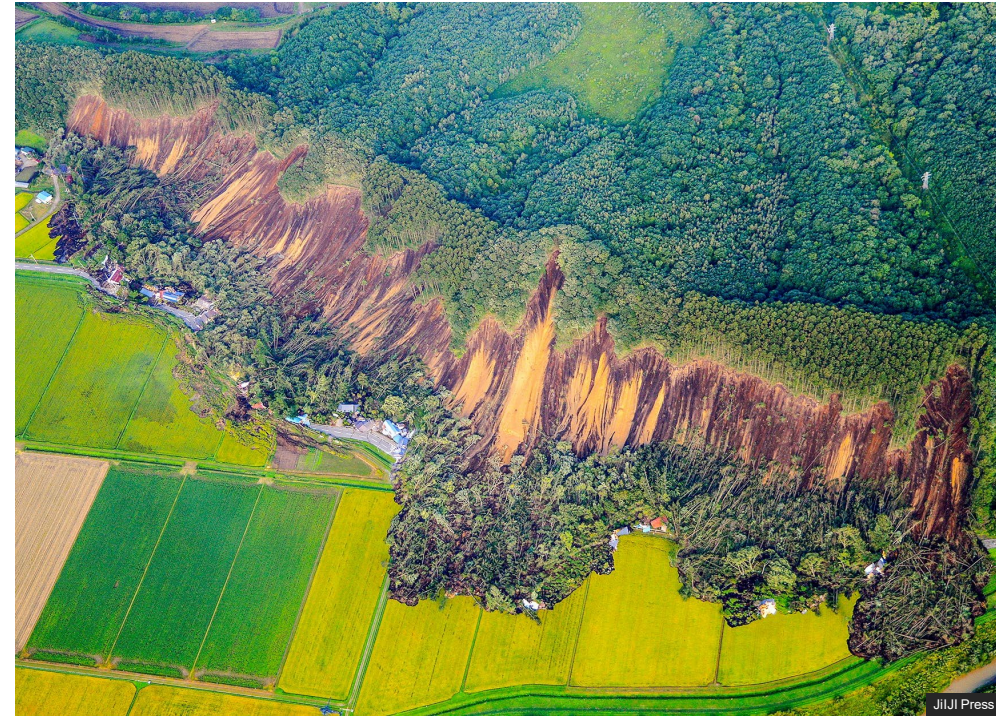


Before (17/08/2018)



After (01/10/2018)

**Landslides caused by the Hokkaido Earthquake, Japan**  
6<sup>th</sup> September 2018





# Hydrometeorological Hazards



Tropical Windstorm

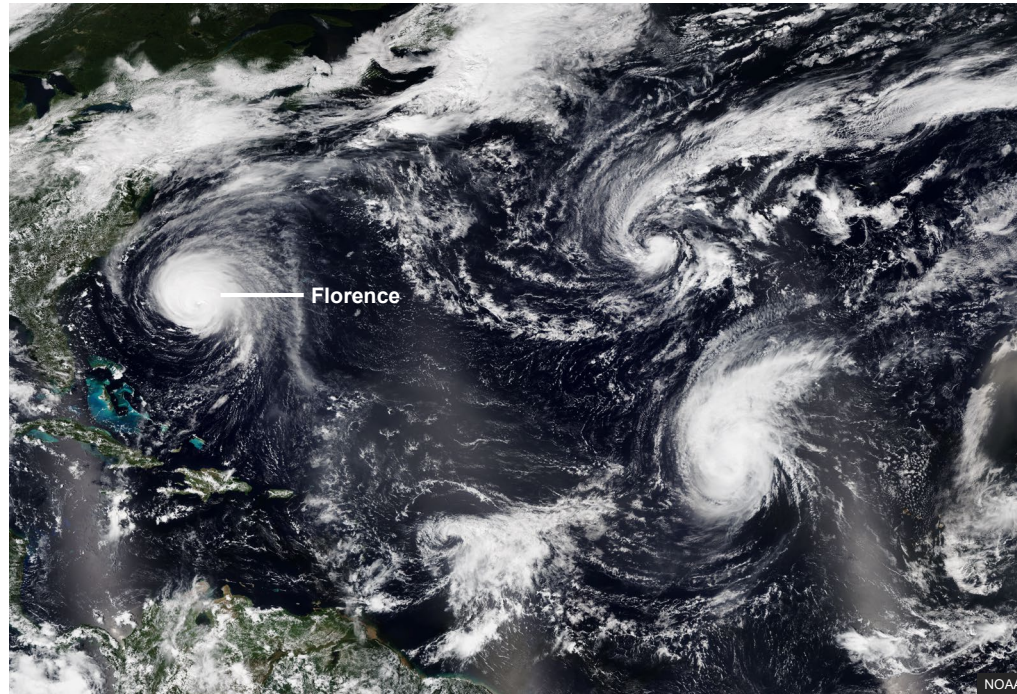


Temperate Windstorm



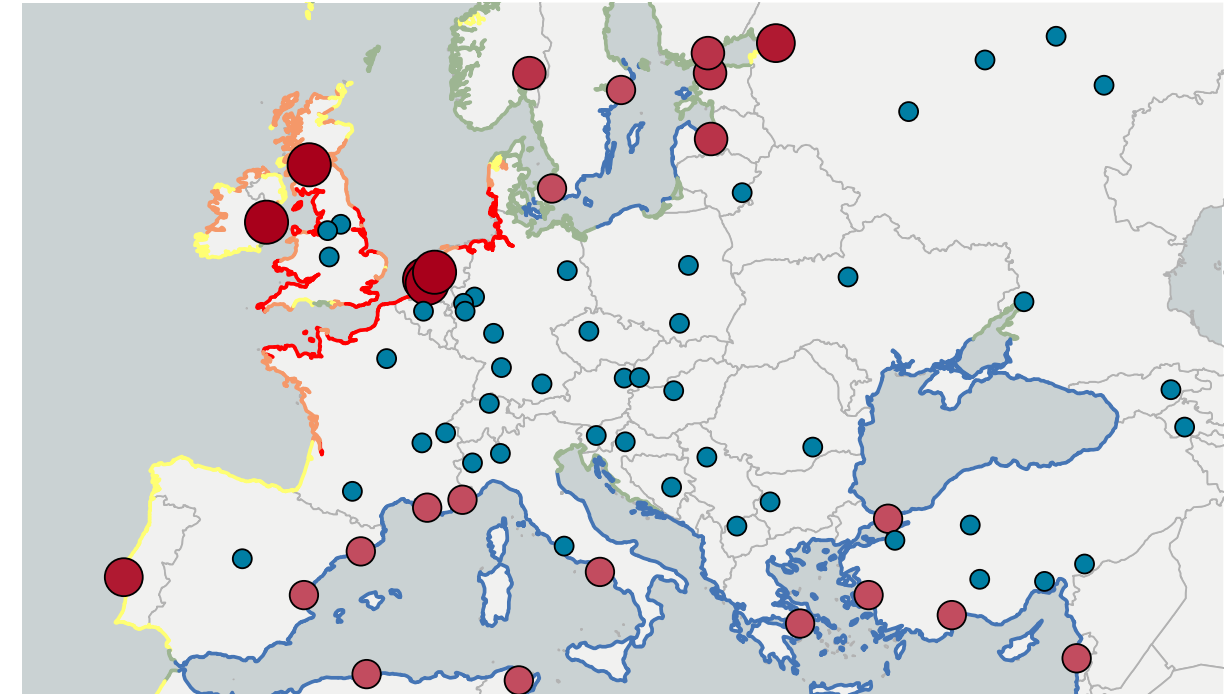
Flood

Four simultaneous names storms in the Atlantic



In September, there were 21 named tropical cyclones active at some point during the month – just one short of the record 22

Coastal Flood Model Update: Storm Surge Hazard in European Cities





# Hydrometeorological Hazards

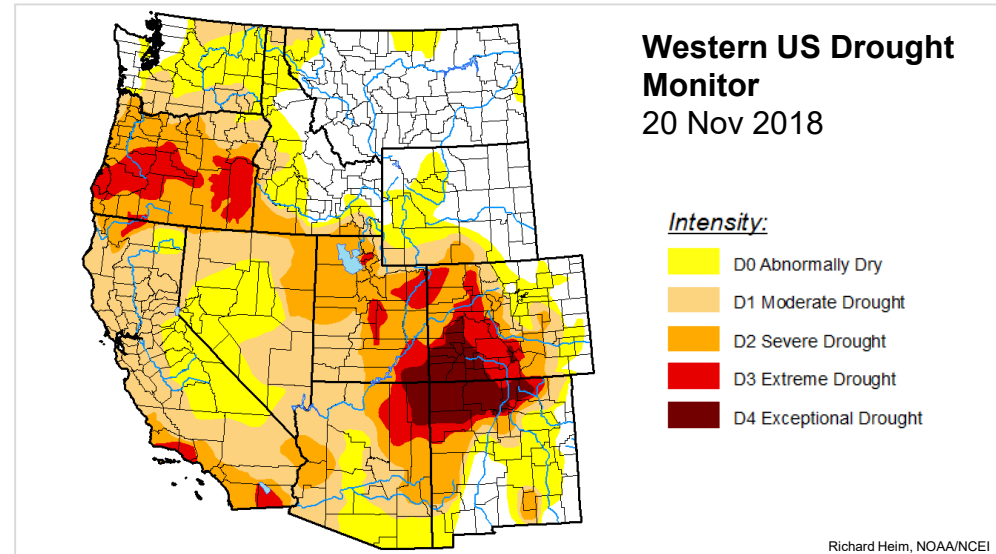
Snowfall in Rome during European Cold Wave in February



California's Camp Fire burned 150,000 acres, destroying over 14,000 structures and killing 85



The Beast from the East engulfs London



Freeze



Heatwave



Drought



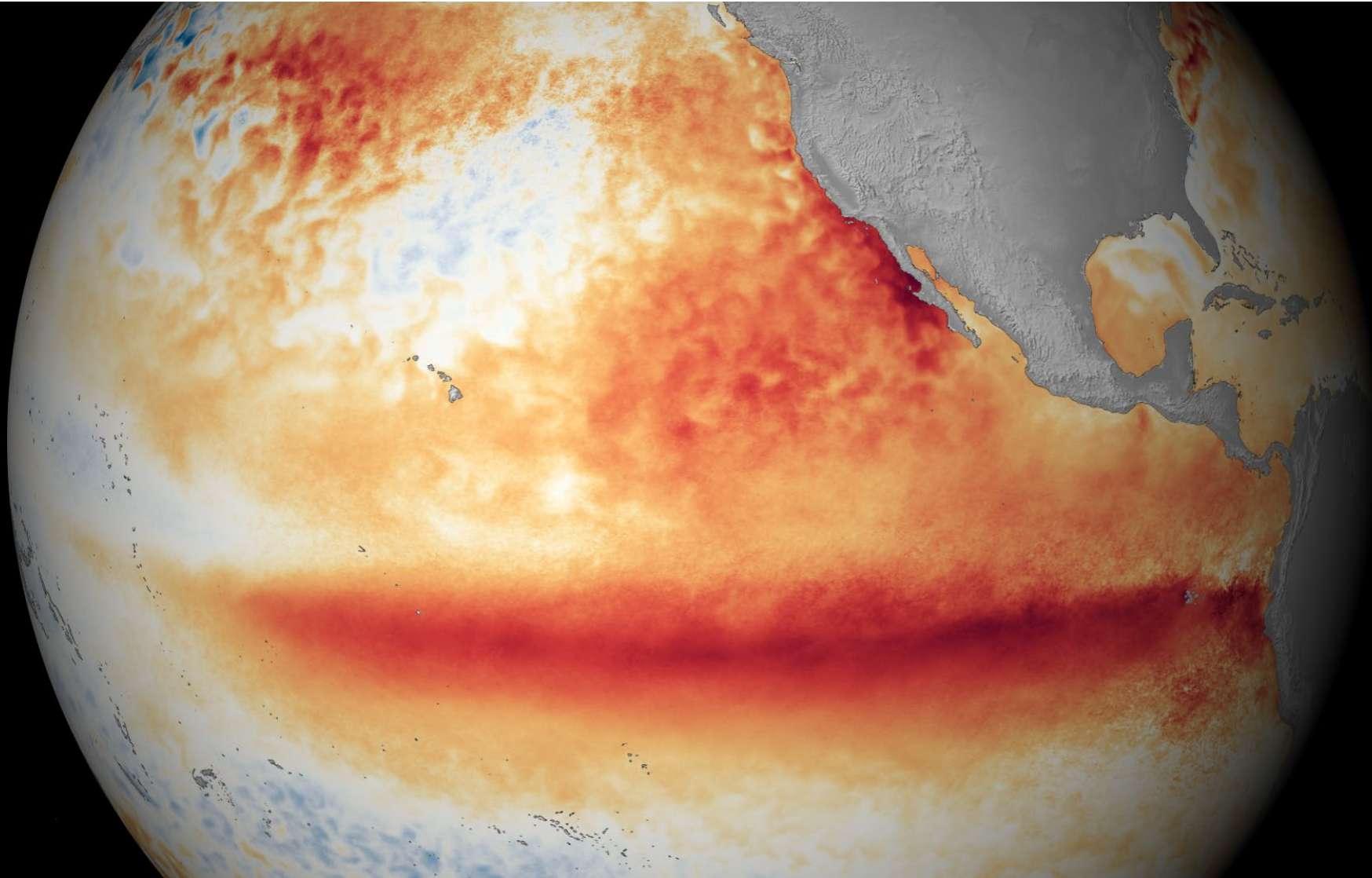
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# Climate Change and Variability

El Niño Temperature  
Anomaly



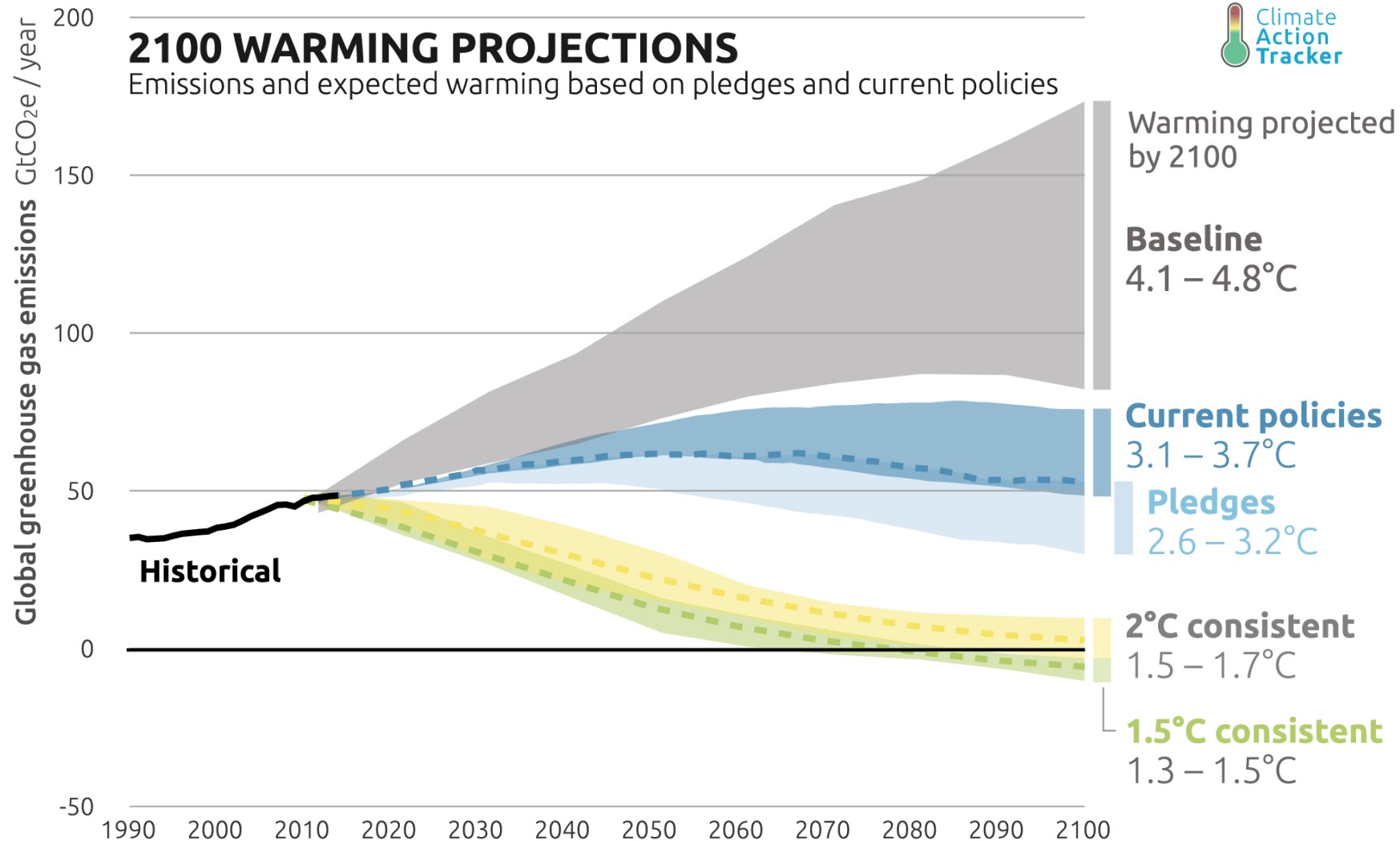
NOAA



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# Climate Change and Variability



Climate Action Tracker

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