

# Hurricanes

## Climate change impacts





Climate change influences the formation, track, strength, and impact of hurricanes, making them more powerful and more damaging.


### Connection to climate change





### Already observed changes


 The most **damaging** U.S. hurricanes are now **3x** more frequent than 100 years ago

 Tropical cyclones worldwide moving **10% slower** since mid-20<sup>th</sup>C, giving an area more time for heavy rain/wind

 Share of Cat 3+ hurricanes in Atlantic has **doubled** since 1980

 Tropical cyclones' **locations** of peak intensity moving **poleward** over last 30 years

 Majority of **studied storm events** found **more severe** or **more likely** to occur

 Climate change **increased speed of intensification** and overall **intensity** of since late 20<sup>th</sup>C

### Anticipated future changes

- ↑ Frequency of Cat 4 & 5 storms expected to increase
- ↑ Tropical cyclones expected to become increasingly intense with warming and continue shifting poleward

### Impacts to society

Hurricanes can result in extensive infrastructure and property damage, and cause uncontrolled toxic releases from major pollution sources.

Communities with lower property values are likely to suffer from more severe damage and have less capacity to recover from the impacts.

For sources of information, please visit: [www.edf.org/climateimpactsources](http://www.edf.org/climateimpactsources)

\*Anticipated future changes are for scenarios without climate action



## COSTS

- Hurricane Harvey alone cost **\$130 billion** in damages.
- Billion-dollar tropical cyclone events in the U.S. have cost over **\$1 trillion** in damages since 1980, with an average of \$19.4 billion per event and resulting in at least 6,593 deaths.