

# Heat waves

## Climate change impacts



Climate change influences extreme heat by hotter weather and shifting weather patterns, which makes heat waves more likely to occur, more intense, and longer lasting.

### Connection to climate change



### Already observed changes



Heat wave **season** in U.S. has **tripled** since the 60s to ~70 days per yr



Globally, extreme heat waves now occur **5x as often** as before



The global land **area** experiencing 30 extreme heat days per year has **doubled** since 1998



**90%** of dozens of studied heat extreme events were found to be **more severe or more likely to occur** due to climate change



Some heat waves are at least **10x more likely** to occur today than a century ago and some would be **virtually impossible** without human-caused climate change

### Anticipated future changes



Heat waves will get more intense, frequent and last longer with every fraction increase in warming; at 2°C may occur **14x** as often.



Heat stress, combined effect of temperature and humidity, expected to increase

### Impacts to society

Extreme heat can lead to heat exhaustion & worsened air quality. Heat waves further intensify the urban heat island effect, especially for those with less green space & tree coverage.

Extreme heat disproportionately harms outdoor workers, people without homes, those who cannot afford air conditioning, and people with asthma-related health problems, particularly in Black, Latino, and Indigenous communities.

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

A recent study found that **37%** of warm-season heat deaths from 1991-2018 can be attributed to climate change