Safety in the Face of the Climate Crisis

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Six years, 261 days, and just under 20 hours. At the time of writing, this is how long we had to achieve zero emissions. By the time you see this article, we're closer to the point of no return than ever before.

Millions of people all over the world are already experiencing the dire consequences of climate change. Closer to home, an increase in the frequency, strength, and devastation of hurricanes, wildfires, droughts, heatwaves, winter storms, and rising sea levels marked 2020 as a record-breaking year for climate catastrophe.

But not every corner of the country faces the same threats. Some states are safer than others when it comes to a warming planet, while others are at risk of nearly every climate change threat we know of. Utilizing States at Risk's data set, we narrowed down exactly which threats each state faces to determine the safest and most vulnerable locations. We also surveyed over 1,000 people to get a better idea of how the public approaches the climate crisis. Keep reading to see the risks facing your state and what you can do to combat the climate crisis straight from your home.

The Impacts

According to our survey, 62% of U.S. adults believe climate change is a threat, but 11.5% don't believe in climate change at all. These perceptions have a tremendous impact on the steps people take to protect the environment. The majority of Americans said they recycle (64.3%), nearly half also pick up trash (48.7%) and just over a quarter have purchased smart devices to limit energy use (15.8%). Nevertheless, 24% of those that don't believe in climate change or don't think it's a threat refrain from practicing any environment-related habits.

Believe in it or not, climate change causes a plethora of problems. For this piece, we focused on the top five: extreme heat, drought, wildfires, inland flooding, and coastal flooding. Here's a breakdown of what each is and how it affects our safety.

Extreme heat

Extreme heat is exactly what it sounds like: periods of weather that are significantly hotter than the average temperature of a specific time and place. But this doesn't just mean that summers will be a bit warmer or pool days will outnumber snow days. Extreme heat events kill hundreds of Americans each year and cause even more to become ill. Plus, extreme heat

often comes with increased humidity, making it more difficult for water to evaporate and sweat less effective at cooling us. This combination makes extreme heat one of the most threatening aspects of climate change.

Drought

While there are various definitions and types of droughts, <u>meteorologists agree</u> that "droughts are prolonged periods of dry weather caused by a lack of precipitation that results in a serious water shortage for some activity, population, or ecological system." Simply put, droughts occur when little water comes in, and too much goes out. As the Earth heats up and extreme heat periods become more common, droughts will also increase in frequency and severity. Since extreme heat events often accompany droughts, it's difficult to nail down the mortality rate associated with dry spells. However, droughts are known to negatively impact agriculture, water supplies, and energy production — all of which increase the risk of people dying.

Wildfires

Humans ignite more than <u>84% of wildfires</u>, but climate change is a key factor in the spread and severity once the fires start. Temperature, soil moisture, and the presence of trees, shrubs, and other potential fuels determine the range, intensity, and longevity of wildfires. As climate change causes warmer, drier conditions and an increase in droughts, wildfires become more and more of a risk. In 2020 alone, 43 people died from direct exposure to a wildfire, while thousands are estimated to have died from indirect exposure, like smoke inhalation. It's projected that if the Western United States continues seeing an average 1 degree Celsius temperature increase annually, the median area burned from wildfires each year will increase as much as <u>600% in some forests</u>.

Inland flooding

Separate from flooding along coasts, inland flooding is still connected to coastal weather events. Inland flooding is often the result of landfalling coastal storms, but periods of intense precipitation can also play a role. During storms or intense precipitation periods, water buildup that overtakes natural and human-made drainage systems cause levels to rise to dangerous levels. As seen in numerous historical hurricanes, inland flooding is powerful enough to damage and destroy infrastructure, putting thousands of lives at risk. Recent years have seen <u>record-shattering inches</u> of rainfall and flooding — levels that will continue to increase as storms intensify, sea levels rise, and precipitation patterns change.

Coastal flooding

Sea levels are rising — fast. Based on recent projections, <u>150 million people</u> worldwide are currently living on land that will be underwater by 2050 — equal to nearly half the population of the U.S. Twice as many people live in areas that will experience dangerous

coastal flooding. With greenhouse gas emissions at the root, warming climates cause ice and glaciers to melt. As more frozen water turns to liquid, seawater expands, and the sea level rises. Before the end of the century, sea levels are expected to rise 2 to 7 feet. While that may seem like a slight increase, coastal cities at or below sea level will quickly be inundated.

States Facing the Greatest Risks

Every state in the U.S. is at risk of extreme heat, but the four other factors vary widely. Seven states are at risk of all five climate change threats: California, Florida, Georgia, North Carolina, Oregon, Texas, and Washington. On the other hand, a single state faced just one threat: Vermont. Check the chart below to see what climate change threats your state faces.

Climate Change Risks
by State

State	Extreme Heat	Drought	Wildfires	Inland Flooding	Coastal Flooding
Alabama	●	●	●		●
Alaska	●		●		●
Arizona	●	●	●		
Arkansas	●	●	●	●	
California	●	●	●	●	●
Colorado	●	●	●		
Connecticut	●			●	●
Delaware	●			●	●
Florida	●	●	●	●	●
Georgia	●	●	●	●	●
Hawaii	●				●
Idaho	●	●	●		
Illinois	●	●		●	
Indiana	●	●		●	
Iowa	●	●		●	
Kansas	●	●	●	●	
Kentucky	●	●	●	●	
Louisiana	●	●	●		●
Maine	●	●		●	●
Maryland	●				●
Massachusetts	●			●	●
Michigan	●	●		●	
Minnesota	●	●			
Mississippi	●	●	●		●
Missouri	●	●	●	●	
Montana	●	●	●		
Nebraska	●	●		●	
Nevada	●	●	●		
New Hampshire	●				●
New Jersey	●			●	●
New Mexico		●	●		
New York	●	●		●	●
North Carolina	●	●	●	●	●
North Dakota	●			●	
Ohio	●	●		●	
Oklahoma	●	●	●	●	
Oregon	●	●	●	●	●
Pennsylvania	●	●		●	●
Rhode Island	●			●	●
South Carolina	●		●	●	●
South Dakota	●	●		●	
Tennessee	●	●	●	●	
Texas	●	●	●	●	●
Utah	●	●	●		
Vermont	●				
Virginia	●			●	●
Washington	●	●	●	●	●
West Virginia	●			●	
Wisconsin	●	●		●	
Wyoming	●	●	●		

Source: statesatrisk.org

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More Than Threats

Determining the safety of a state in terms of climate change, we have to consider more than just risks. Climate change research has long pointed to a dire future and called on states and nations to take action. Fortunately, a lot of states have. Overall, 26 states have a state-led adaptation plan finalized, while 6 have plans underway. Even without a state-led adaptation plan completed or in the works, 34 states have sector or agency plans, and 40 have local or regional plans. Considering adaptation plans, some states may be better prepared to combat the climate change threats they are bound to face. States at Risk used the following four criteria to grade states' preparedness for respective climate change risks:

- Is the state taking action to address its current risks from the climate threat?
- Has the state undertaken activities to understand its future changes in vulnerabilities and risks from each climate threat?
- Has the state planned for adaptation to the future changes in risks from each climate threat?
- Is the state implementing specific actions to address future changes in risks to each climate threat?

Based on their findings, the states most prepared to tackle climate change, earning an A or A-, are:

- California
- Massachusetts
- New York
- Pennsylvania
- Connecticut

On the flip side, the states least prepared to tackle climate change, earning an F, are:

- Texas
- Nevada
- Missouri
- Mississippi
- Arkansas

Here's What You Can Do

Regardless of what grade your state has earned or actions your state has taken, there are plenty of ways individuals can make a difference. This Earth Day, take a pledge and commit to making the Earth a better — and safer — place for everyone. Small steps like picking up trash, swapping plastic for paper, and limiting water use can go a long way. Even better, invest in smart devices that do the work for you. Plenty of smart home devices save energy _and_ money, making it a win-win for your wallet and the planet. Consider adding a smart

thermostat, smart lighting, or an <u>all-in-one security system</u> that combines eco-friendly practices and additional peace of mind. Climate change impacts all of us, but if we tackle it as a team, we can ensure everyone is safe — tomorrow and 20 years from now.