

By: Kennedy Aikey, Kennedy Cook, and Hailey Trimpey

Examining the Climate Crisis

From wildfires in California to record high temperatures in eastern Siberia, the [climate crisis was felt in all parts](#) of the world in 2020. Although there is near universal [consensus in the scientific community that a climate crisis exists](#), government action to confront it has lagged in most countries--including the United States.

Question #1: What is the “Climate Crisis?”

According to NASA, 97% of actively publishing scholars of climate science “agree that humans are causing global warming and climate change.” The effects from this can be seen in a variety of ways. For example, last year (2020) was among the hottest years ever recorded. Extreme temperatures affected places ranging from states such as Colorado and California to countries such as Australia and Siberia. One of the effects of this heat was witnessed in the form of intense forest fires. California and Colorado recorded their largest ever forest fires. Meanwhile, eastern Australia experienced the “black summer” killing many people and wildlife. The Arctic has also taken a hard hit from these record breaking temperatures. Sea ice area measured at its second lowest ever, causing the Arctic to heat twice as fast. In addition, CO2 levels have hit a record high of 417 parts per million (ppm). This is alarming considering CO2 levels have not surpassed 400 ppm since the Pliocene era roughly four million years ago.

Over the past decade, carbon dioxide emissions have grown 10% due to fossil fuels alone. As previously mentioned, average temperatures have increased globally. Because of this, ice levels are at a record low. The melting of ice sheets and glaciers has also led to a rise in sea levels. In the last ten years, the rate of sea level rise grew to about 4.4mm/year. With this can come high-tides and severe storms which directly affect people living in coastal areas.

According to NASA, if the global temperature continues to rise at the current rate and exceeds 1.5 degrees Celsius or 34.7 degrees Fahrenheit, it not only threatens the delicate ecological balance, but human existence too. The threat to humans will expand to food security, human health, and water supply--all of the basic elements essential to human survival.

Question #2: In what ways have we seen the effects of the climate crisis over the past year?

Over the past year, the United States has witnessed the effects of the climate crisis. Texas was hit by an extreme blizzard that caused rolling black outs and left many people in freezing cold temperatures with no heat. This rapid change in temperature severely [affected the power grid in Texas](#). If temperatures continue to fluctuate this rapidly, the United States power system could be greatly threatened. During this winter storm, Texas experienced the coldest temperatures it has had in 72 years. Around the world, average temperatures are rising because of greenhouse gas emissions. This means that there is more heat within our global climate system, which can lead to extreme weather conditions. These weather conditions threaten ecosystems and can create dangerous conditions for humans.

The United States is not the only country affected by the climate crisis. All over the world, countries are facing issues caused by climate change. Interestingly, we saw minor improvements in our global climate during the first shut-down due to the Covid-19 pandemic. When large factories shut-down and transportation came to a halt during the pandemic, carbon emissions were measurably lower. Although the worldwide shut-down was helpful for the environment and various ecosystems, [it will not stay this way](#). Since the world has started to reopen, carbon emissions have risen. The shut-down showed us that we will have to make major changes in our lifestyles if we are to make long-term changes to mitigate the climate crisis.

Question #3: What can be done to improve the current situation with the environment?

The Biden administration has signaled that he intends to address the climate crisis. Biden's environmental goals include: ensuring the USA achieves a 100% clean energy economy and net-zero admissions by 2050, investing in our infrastructure to make everything as clean energy and environmentally friendly as possible. Undoubtedly, the administration will face many challenges in realizing these goals.

Biden has argued that the United States must use a multi-faceted approach to help stem the negative effects of climate change. Beyond infrastructure and the development of clean energy sources, the administration plans to address the climate crisis by focusing on those who are most likely to engage in practices that harm the environment. The administration contends that doing so will be vitally important to those communities who are disproportionately affected by pollution—many of which are populated by minority communities. By addressing this abuse by polluters, they can ensure the health and safety for those individuals.

Additionally, the Biden Administration is emphasizing the role of the United States in global interconnectedness. Toward this end, the United States has officially rejoined the [Paris Climate Accord](#), as of February 2021. President Biden issued an Executive Order reinstating the United States participation as a means to signify the United States dedication to bettering climate change. The United States was out of the agreement for 107 days before rejoining it. Still, the administration will face much scrutiny given conflicts between environmental activists and advocates for economic growth. Although the two are not mutually exclusive they are often presented as an "either/or" proposition in political debates.

Parting Thoughts:

The Climate Crisis represents a unique collective action problem requiring cooperation from countries around the world. The scientific evidence conveying the problems associated with the climate crisis is robust. The incidence of extreme weather events such as hurricanes, tornadoes, wildfires, and flooding have considerably increased in recent years and put human lives at risk. Nonetheless, it has been difficult to generate broad support to take action to mitigate the effects of climate change in the United States.