Myths vs Facts About Climate Change

Anonymous

Department of English, ARCC

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Prof. Chris McCarthy

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The global average sea level has risen by 8-9 inches since 1880, with about a third of that rise occurring in the last 25 years. Americans believe climate change is a serious threat, yet there are still many that cling unto misconceptions that undermine our ability to tackle it efficiently. A lot of people think climate change is just a part of the Earth's natural cycles, but scientists have shown that the current changes are happening much faster due to human activities. Other folks believe it's too late to do anything about it and not our problem to solve leaving it for future generations to take care of, but we can still take steps to reduce future impacts. Also, there is a very common myth that scientists don't agree on climate change but most scientist do believe and agree it's real, heavily caused and is still being fueled by humans. Climate change is a global issue often misunderstood due to widespread of myths, by debunking these misconceptions and backing them up with facts, we can better understand the urgency and the need to look out for this situation and motivate collective action towards a sustainable future. Climate change is real and is happening now, demanding urgent action before it's too late.

One of the most persuasive myths is that climate change is purely a natural phenomenon, driven by factors such as volcanic eruptions. Many people use history, stating that it is merely just a cycle and a natural pattern the earth always experiences, and we only happen to be in that era. They often admit that the Earth's climate is changing but always attribute it towards nature and cycles which is not only always the case. While it is true that the Earth's climate has undergone natural changes over the years, the current rate of change is unprecedented and cannot be explained by natural factors alone. A large majority of climate scientists agree that the current changes in climate are largely driven by human activities rather than natural cycles. Most studies show that over 97% of actively publishing climate scientists support that climate change is real

and mainly caused by human actions. To add, Scientific evidence shows that human activities, particularly the burning of fossil fuels and deforestation, are the primary drivers of recent climate change. Client Earth (2025) writes, “When fossil fuels are burned, they release large amounts of carbon dioxide, a greenhouse gas, into the air. Greenhouse gases trap heat in our atmosphere, causing global warming.”

The Earth is not warming is another common myth often supported by cherry-picked data points showing temporary cooling periods. However, long term data shows that global temperature has been steadily rising over the past century. “Overall, Earth was about 2.65 degrees Fahrenheit (or about 1.47 degrees Celsius) warmer in 2024 than in the late 19th-century (1850-1900) preindustrial average. The 10 most recent years are the warmest on record” (NASA, 2024). This proves that looking at the change of climate in recent years, global warming is increasing steadily. This may not sound like much, but even small changes in average temperature can have significant impacts on the climate. These changes affect more than we think. For example, the Arctic is warming at more than twice the rate of the rest of the planet leading to a dramatic loss of sea ice similarly, many glaciers around the world are melting contributing to rising sea levels. World Wildlife Fund (2025) argues, “Since the early 1900s, many glaciers around the world have been rapidly melting. Human activities are at the root of this phenomenon. Specifically, since the industrial revolution, carbon dioxide and other greenhouse gas emissions have raised temperatures, even higher in the poles, and as a result, glaciers are rapidly melting, calving off into the sea and retreating on land.” Also, the same article says, “Melting glaciers add to rising sea levels, which in turn increases coastal erosion and elevates storm surge as warming air and ocean temperatures create more frequent and intense coastal storms like hurricanes and typhoons.” (World Wildlife Fund, 2025). Again, Rising sea

levels are having a big impact on cities like Miami and New Orleans, increased water levels lead to more frequent flooding especially during high tides and storms, streets can get submerged and many infrastructure become at risk which can lead to damage of homes and businesses and also loss of lives. Which just shows how important these glaciers are to us and how they play an important role in sustaining life itself. Many might argue and use a particularly cold winter as a basis to disprove global warming but according to scientists it is better to look at long term trends rather than short term trends.

In addition, many people believe that climate change is a distant problem that will only affect future generations. However, the impact of climate change is already being felt around the world and is having significant impacts on our lives today. As global temperatures rise, heatwaves become more frequent and intense. This can lead to a heat stroke, which can be fatal if not treated properly. This mostly affects the vulnerable populations such as the elderly, children and people with pre-existing health conditions. In (EPA, 2025) writes, “Climate change poses many threats to the health and well-being of Americans. This includes increasing the risk of extreme heat events and heavy storms, increasing the risk of asthma attacks and changing the spread of certain diseases carried by ticks and mosquitoes. Some of these health impacts are already happening in the United States.” Moreover, wildfires, which are becoming more common due to climate change, release smoke and make matters worse by worsening air quality and posing serious health risks or intensify already existing ones.” The Nature Conservancy (2024) writes, “Unhealthy air isn't the only impact from the copious amount of smoke and gases from those extreme wildfire events. The carbon dioxide released when forests burn itself accelerates the impacts of climate change.” Thus, climate change is making our world unsafe. It

is making people more prone to respiratory diseases and other heart related problems and reducing the quality of life in the long run.

There is a strong belief that technological advancements alone will solve all climate change problems. It won't. While technology plays a crucial role in addressing climate change, relying solely on technological solutions is not sufficient. Climate change is not just a technical problem, it involves social economic solutions. Addressing climate change requires changes in policies in economic, industrial and individual behaviors. While technology alone cannot achieve that, it is somewhat true that it is needed to be able to solve some parts of this problem, but it cannot stop this problem entirely on its own.

Another myth that climate change is too difficult to understand is a common misconception that can slow down efforts to tackle it. Climate change simply means that the Earth's climate is changing significantly and for a long time, mainly because of the things humans are doing. In United Nations (2025) argues, "Burning fossil fuels generates greenhouse gas emissions that act like a blanket wrapped around the Earth, trapping the sun's heat and raising temperatures. The main greenhouse gases that are causing climate change include carbon dioxide and methane. For example, These come from using gasoline for driving a car or coal for heating a building.

The main cause is the increase in greenhouse gases like carbon dioxide and methane. These gases trap heat from the sun making the planet warmer this is called the greenhouse effect. The evidence for climate change is strong and comes from a lot of different places. For example, temperature records show that the Earth's average temperature has been rising rapidly over the last decade. In Climate.gov (2024) writes, "Earth's temperature has risen by an average of 0.11°

Fahrenheit (0.06° Celsius) per decade since 1850, or about 2° F in total. The rate of warming since 1982 is more than three times as fast: 0.36° F (0.20° C) per decade."

Also, evidence also shows that CO2 levels in the atmosphere are higher now than they have been in the last thousands of years. "The global average carbon dioxide set a new record high in 2023: 419.3 parts per million. Atmospheric carbon dioxide is now 50 percent higher than it was before the Industrial Revolution." (Climate.gov, 2024). These facts are straightforward and clearly show what's happening to our world and climate.

In conclusion, the myths around climate change really hold us back from tackling some of the biggest issues we are facing today, by clearing up all these misconceptions and sticking to the facts we can make smarter choices to reduce the effects of climate change and work towards it together. It is clear that our actions are causing global warming, and we are already seeing the impacts. Climate change affects everything from our health to our economy and the environment and the longer we wait to address it, the more severe the consequences will be for future generations. It's up to all of us to take action now using innovative ways, changing lifestyles, empowering more people and making personal efforts to cut emissions and safeguard our world for ourselves and future generation to come.

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