

# The Anthropocene: History, Politics, and Impacts of Climate Change<sup>1</sup>

## Introduction

We are living through a historic time where a single species, *homo sapiens*, has caused insurmountable change to the climate. The history of the Anthropocene is debated but largely suggested to start around the time of colonization to industrialization. Humans have wreaked havoc on the climate for hundreds of years and are now beginning to suffer the consequences. The human dimensions of history, politics and impact of the climate will be discussed in this paper. However, this isn't a one sided phenomenon. Climate change has and will continue to impact human society if we do not attempt to halt its momentum .

How have humans impacted the climate and how have politics reacted to this impact? To what degree has society felt the effects of climate change? These questions will be answered through scientific and social science research, case studies, *The Great Derangement: Climate Change and the Unthinkable*, *This Changes Everything: Capitalism vs. The Climate*, and reports from climate and scientific organizations.

## History

Only three percent of the scientists don't agree that there has been global warming over the past several decades or that humans are not the cause of this warming (Harrington 2020). The term Anthropocene has been in existence for merely 20 years, being coined by Crutzen and Stoermer in 2000. From an economic viewpoint of the causes of climate change, scholars have dedicated this epoch as the Capitalocene. Climate changes coincided with the creation of capitalism and the world's need for wealth, power and to dominate nature. Human society has experienced an increase in life span, child mortality and global health statistics. This insatiable need for economic growth and human progress have taken a toll on the planet's finite resources to the potential point of no return (Malhi 2017).

Robin and Steffen (2007) state "the Anthropocene defines the momentous and *historical* change" in that the natural world is no longer separate from the actions of humans. This epoch is dominated by humans and has been geologically and climatically altered worldwide. Carbon dioxide emissions have the potential to affect the planet for 50,000 years. Historically three changes have dramatically altered the human-nature relationship and affected climate change: the Great Acceleration, agriculture and the industrial revolution (Robin and Steffen 2007). Despite these alarming and documented changes so far during the Anthropoece, politicians have done little to stop the momentum.

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<sup>1</sup> Anth 477 Ecological Anthropology. Explore in depth an area of ecological anthropology via literature review or a published ethnography. This course looked at the past and present human-environment interactions.

## **Politics**

There is a low likelihood that individual choices and actions will aid in fixing climate change. Impacts of climate change are on such a large scale that collective decisions must be made and acted upon to inflict real change (Ghosh 2016). This means transformation needs to be made on a political level. The current statistical divide on how Democrats/liberals and Republicans/right-wings view climate change is staggering. Over seventy-five percent of Democrats and liberals believe humans are causing climate change. These numbers have only risen since 2001. On the other hand, in certain regions, around eighty percent of Republicans do not accept climate change science (Klein 2014). Self-identified right-wings see climate change science as a conspiracy, “linking it with socialism, communism and so on” (Ghosh 2016, 137).

The world is aware of what it must do to maintain safe temperatures and we have the technology to do so, yet carbon emissions continue to rise. Despite the facts, politicians are scared to take a stand on climate change due to how they could be perceived (Willis 2019). America, and other parts of the world, are missing the political will needed to tackle climate change (Atkinson 2013). In 2007 Americans ranked climate change last in their political concern even though they admitted to knowing it was happening (Klein 2014).

## **Climate Opposition**

Climate opposition did not form on its own but through the guidance of corporations, energy billionaires, and the media. Mass media has diminished the seriousness of climate change and on occasion perverted scientific facts. Climate skeptics and corporations relying on carbon economies own large segments of today’s mass media (Ghosh 2016). Those in power fear climate change due to its “potential to drastically [reorder] the global distribution of power as well as wealth” (Ghosh 2016, 142). Corporations, politicians, and billionaires reliant on carbon economies yield their power from the usage of fossil fuels. Without the use of fossil fuels their political and economic power would disappear. In a world that strives to maintain power, dominance, and privilege, the redistribution of power and wealth from climate change is terrifying (Ghosh 2016)

Politicians, corporations, and billionaires are not the only ones denying climate change. Globally, and strongly in the United States, citizens deny and do not act on climate change. As humans, we do not take threats to our belief system lightly. Climate change threatens our belief that we are safe, secure, and prospering.

If new information seems to confirm that vision, we welcome it and integrate it easily. If it poses a threat to our belief system, then our brain immediately gets to work producing intellectual antibodies designed to repel the unwelcome invasion (Klein 2014).

Mary Douglas' concept of boxes and boundaries can help one understand the denialism and opposition to climate change. From a young age, we are taught to put things into boxes. In this scenario the box would be our experiences with climate change; that we do not visually see it happening or had heard it discussed as we grew up. We have seen and heard however that we are safe, secure and nature will take care of us. Paying attention to these boxes elicits either negative or positive responses from those around us and in our emotions. Safety and security make us feel good while the idea of impending doom causes anxiety. Climate science oversteps the boundary of safety and security. Having one's boundaries crossed evokes an emotional reaction as these boundaries are heavily intertwined with our emotions and intellect. The fear of accepting climate science and the negative response one will feel is too much for some people to handle. These ideas of boxes and boundaries being crossed are generally not consciously known to the individual. Thus, they appear to be stating "just their view" and not perpetuating a psychological response to climate change.

### **Human Impacts on the Climate**

Stott et al. (2010) affirm that there is a slim chance of climate change being caused by natural factors. Changes in the Arctic including temperature increases, decreases in sea ice, and changes in precipitation patterns have been attributed to humans. In a statistical analysis of the Holocene, environmental and cultural changes happened concurrently with only a delay of 50-100 years for cultural changes (Berglund 2003). There is over a ninety-five percent chance that human actions over the last fifty-six years have caused global warming. In as little as one hundred and fifty years carbon dioxide levels rose 134 parts per million (NASA 2020). Pollution, overpopulation, deforestation, and greenhouse gases are major ways that humans have impacted the climate.

Pollution comes in many forms. Air and water pollution affects our climate greatly. America produces 147 million metric tons of air pollution per year. Water pollution is so detrimental that over 2.4 billion people lack access to clean water. Alexander (2020) declares that oceans contain 5.25 trillion pieces of plastic. Sixty-four percent of global warming is attributed to the production of carbon dioxide. Since industrialization, its concentration has increased by forty percent (European Union 2017).

Humans are reaching the carrying capacity of this planet. Our commitment to population growth is almost on par with our commitment to economic growth and societal progress. This significant increase in population has degraded land and ecosystems, increased reliance on fossil fuels, and increased carbon dioxide levels. To accommodate these population levels, deforestation has become a prominent practice. Each year an estimated eight million acres of trees are cut for development and wood.

With fewer trees to filter carbon dioxide, more enter the atmosphere. As we continue to impact the climate in these ways we are starting to feel the effects on our societies.

### **Climate Change Impacts on Humans**

Climate change and related weather are expected to “damage infrastructure, ecosystems and social systems that provide essential benefits to communities”. These outcomes will intensify existing inequality. Those who are currently vulnerable such as low-income families, the elderly, and minority communities have fewer means to prepare for the impacts of climate change that disproportionately affect them (USGCRP 2018). Increased natural disasters, food insecurity, health, and disproportionate effects on Indigenous people are all impacts of climate change.

Annual precipitation totals in areas of high altitude have begun to fall as rain instead of snow. Snow-melt is starting earlier and winters have become shorter. Not only does this impact the water supply of these regions but causes natural disasters (Richardson et al. 2014). Coastal inhabitants may experience increased flooding and hurricanes as ocean levels rise (Pettman 2012). Increased temperatures, sea levels, and other extreme events will destroy infrastructure and property (USGCRP 2018).

Food insecurity is a real and extremely likely effect of climate change. Water scarcity, soil erosion, pest outbreaks, and increased temperatures are forecasted to cause declines in American crop supplies. Temperature increases may also lead to an upsurge in heat stroke in livestock reducing product output (USGCRP 2018). Many societies are already feeling the effects of food insecurity. Indigenous people of Canada and Alaska are seeing reductions in polar bear populations, a species they have traditionally hunted. Ice is freezing later in the fall and causing seals to be inaccessible (Pettman 2012). Fisheries around the world are likely to feel strong effects from climate change. Sea temperatures and levels are rising, acidification is increasing and rainfall patterns are changing. Productivity, distribution, seasons, quality, and availability of fish and fisheries are expected to be transmuted. The reason change in fisheries affects human society so greatly is twofold. Four hundred million people depend on small-scale fisheries for their protein and mineral intake. Ninety-eight percent of people in developing countries and thirty-six million worldwide are employed in fisheries and aquaculture (Richardson et al. 2014).

The Southwest United States is one of the regions most affected by climate change and is home to seventy federally recognized tribes. Indigenous people have added very minimally to climate change but are disproportionately affected by it. Areas that these tribes reside on have faced droughts “on par with the Dust Bowl of the 1930s” and faced the hottest years on record, at the time, between 2008-2013. Lakes and rivers in the area are likely to evaporate more, the soil will become more arid and plants won’t retain moisture as much. By 2050 there could be deadly Dust Bowl conditions in the Southwest United States (Baer and Singer 2016). Indigenous populations all over

rely on natural resources for economic and cultural means. Communities may see effects on their agricultural productions, agroforestry, fishing, recreation and tourism. Indigenous people have had to consider relocating their communities in order to safeguard their cultural and community continuation and adapt to climate change (USGCRP 2018).

One of the potentially most serious impacts of climate change on society is on human health. Infectious diseases, such as waterborne and foodborne diseases, may increase due to growing air and water temperatures. Heat-related deaths are expected to increase (USGCRP 2018). There have already been raised levels of deaths and injuries from natural disasters. Due to effects on livelihood, mental health may decrease in farmers (Richardson et al. 2014).

Heat-related deaths will increase due to the fluctuating temperatures jeopardizing the body's capability of regulating its temperature. In contrast, winter-related deaths will decrease. These temperature changes can also exacerbate existing chronic conditions. Annually it is estimated that thousands to tens of thousands of people will die due to heat in the summer. The elderly, "the socially isolated and economically disadvantaged, those with chronic illnesses, as well as some communities of color, are also especially vulnerable to death or illness" (USGCRP 2016). Vector-borne diseases will change in their geographic and seasonal distributions. Ticks are anticipated to show earlier in the season and expand further North in the United States. The expanded geography and season of ticks open humans up to a greater chance of exposure (USGCRP 2016).

## **Conclusion**

It is evident that humans are the primary source of climate change. We have created air and water pollution, overpopulated the planet, increased greenhouse gases, and deforested a large amount of the environment. Politicians, corporations, billionaires, and citizens are all aware of what we need to do to slow climate change (Willis 2019). Yet, we as a society and world largely ignore the issue through denialism and opposition of facts. Fear, challenging our beliefs, and facing climate anxiety have been too much to handle for most of the world. As we continue to deny climate change, people are feeling the effects of our indifference.

Increases in natural disasters have wreaked havoc on infrastructure and property. Food insecurity and health complications will intensify as climate change continues. People will begin to die from climate-related issues, issues we can mitigate. Minority communities, such as indigenous communities, are already experiencing the disproportionate effects of climate change. Effects that they minimally contributed to. If we do not begin to believe in climate science and implement practical and effective solutions to fight the issue we may reach a point of no return. A point where humankind will suffer the effects of climate change indefinitely. The world has the resources to soften the blow of climate change but in order to do that, we must change our values and beliefs as a species and accept the fact that this is a real issue.

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