

Kutztown University

Research Commons at Kutztown University

English Department: Research for Change -
Wicked Problems in Our World

English Department

4-8-2021

Aspects of Climate Change

Anthony DeFusco
adefu447@live.kutztown.edu

Follow this and additional works at: <https://research.library.kutztown.edu/wickedproblems>



Part of the [Environmental Studies Commons](#), [Human Geography Commons](#), [Physical and Environmental Geography Commons](#), [Public Policy Commons](#), and the [Social Policy Commons](#)

Recommended Citation

DeFusco, Anthony, "Aspects of Climate Change" (2021). *English Department: Research for Change - Wicked Problems in Our World*. 51.

<https://research.library.kutztown.edu/wickedproblems/51>

This Research Paper is brought to you for free and open access by the English Department at Research Commons at Kutztown University. It has been accepted for inclusion in English Department: Research for Change - Wicked Problems in Our World by an authorized administrator of Research Commons at Kutztown University. For more information, please contact czerny@kutztown.edu.

Anthony DeFusco

Dr. Vogel

CMP 200

24 March 2021

Abstract

Climate change continues to become a global issue, and with that, more people being affected by the harmful factors that come with it. Climate change not only effects the environment, but also has aspects of cultural and health issues. Different cultures view this problem differently than other as it affects different aspects of that culture. Health risk is on the rise as air pollution is more prominent and diseases spread. The climate is being warmed, causing extreme weather and drought. These different perspectives on global warming allow for new and unknowing people to be exposed to this issue and allow for innovations in combating climate change. It is urgent that people become aware of this wicked problem as it expands globally.

Keywords

climate change, global warming, culture, environment, health risks, climate awareness, technology.

Aspects of Climate Change

When people hear about climate change, they may tend to think about the environment. While the environment is heavily affected by climate change, there are other aspects to life that continue to be affected as well. Climate change is a wicked problem that continues to worsen as time goes on, with cultural differences, the environment and health all being impacted. Different cultural views, extensive health effects, and environmental damage are all different aspects of climate change that make it a difficult problem to solve. With the focus and damage mostly being on the environment, it is hard to focus on the other aspects and issues that come along with climate change. This conceptual problem is hard to solve, but there are methods that can work. Ignorance on the harmful factors of climate change is a major factor in its worsening but understanding different cultural views on the warming climate and educating people on the health effects and environmental damage can allow people to take a new perspective on climate change, and in the process, become more sustainable to help lessen the effects of climate change one step at a time.

Climate change is a multi-faceted issue, with cultural aspects hiding in the shadows of the many issues it comes with. This cultural aspect affects modern countries, such as America but also affects less modernized countries that rely on agriculture and farming for living. The biggest cultural difference I see is in the two-party system of America, with the Democratic party being more involved in the climate and the Republican party less into it. Often, these parties' supporters clash over if climate change is real or not. The clashing heads of the beliefs and subcultures of these supporters are a big problem and often delay the process of combating climate change at the federal level. Al Gore, former vice president and Democrat really brought

climate change into the light when he ran for president, and it was a big shock to a lot of people. In an interview, Gore speaks on that. When asked about dealing with the backlash, he stated “Forty years ago, it was not easy to get people’s sustained attention for this looming crisis.” This shows his struggle to get the attention of the American people to really be worried about the warming climate and that it is hard to change the minds of a stubborn culture. In the same interview, he also says “More and more people on the conservative side of the spectrum are really changing their positions now.” With more people learning about the harmful effects of climate change, it is becoming more of an issue with lots of people.

Agricultural driven areas and cultures are also at the forefront of the cultural side of Climate Change. For instance, the underdeveloped country of Pakistan struggles to keep up with the technological demand for combating climate change. In a journal written on climate change awareness in Pakistan, the author says “Pakistan's agriculture is vulnerable to the cataclysmic transformations in the climate system, causing productivity loss, soil degradation, water scarcity, resource depletion etc.” With little awareness on climate change in Pakistan, it is hard for the people to adapt and prevent it. The study also states, “The climate change awareness obviously determines the nature, quality and strength of climate change adaptations.” With the citizens not knowing the effects or being aware of climate change, it is hard to combat it. This same issue goes for rural farmers in China. Rural rice farmers in China are having an issue with the resilience of their crops due to climate change. In a report done on rice production in China, the author warns “There is an urgent need for enhancing climate change resilience in rice production.” There is a need for more awareness on the effects of climate change on farmers in rural China. In the same report, they study a type of algae that enhances the resilience in crops; “we report a reflective algal mulching-based culture practice to attain a simple and low-cost

biological method for enhancement of climate change resilience. As more awareness and studies are being brought to light, we can start to fix some issues that come with climate change.

The warming climate also has extensive effects on the health of normal and healthy people. These risks on human health range from respiratory issues to disease outbreak. A journal on the health risks of climate change states “Climate change affects health through a range of pathways, such as resulting in disease occurrence or health risks caused by heat waves, floods, and droughts, which exerts negative impacts on humans’ health and welfare.” Climate change has multiple ways in which it can affect health, and a big way is air pollution. In major cities and urban areas, smog is becoming a not-so-rare occurrence. In a firsthand account, a traveler says this: “She mentioned that while taking a flight out of Madrid, she looked out the window and the whole city was surrounded by smog. A snow globe of pollution.” Smog comes from the burning of fuels and other toxins mixed with fog. Inhaling smog causes these toxins to enter the lungs and therefore causes respiratory issues. There is also a chance for the spread of infectious diseases due to the warming climate. In a journal done by the British Medical Journal, the writing says, “Changes in the risks of infectious diseases would occur particularly as a result of climatic influences on diseases such as malaria, dengue fever, trypanosomiasis, and schistosomiasis.” The warmer climate allows for diseases such as the ones listed to thrive and spread more easily. Graphs in the same study show that with a warmer climate, the transmission potential for those diseases increases as well. Extreme heat waves from climate change put people at risk for heat related illnesses and drought. “Prolonged droughts are causing malnutrition in Africa, while extreme heat is leading to spikes in heat stroke in places as diverse as Baltimore and Paris,” adds author Lola Butcher in her journal on climate change and its health effects. The warmer climate runs the risk of multiple health issues.

The environment is also greatly affected by this phenomenon. Problems with the environment stemming from climate change include increased severe weather, ozone layer depletion, water stress and scarcity and rising sea levels. Warm climates allow for more severe weather. In *the Geographic Journal* written by Mike Hulme, he states “Until recently, climatologists and meteorologists were reluctant to attribute the severity of an individual weather event — a heat wave, an ice storm or a hurricane, for example — to climate change.” As more research is being done by climatologists, they are finding more ties to warmer climates and extreme weather events. Extreme weather causes extensive damage to the environment by knocking down trees causing habitat loss and destruction of resources. A branching effect comes with a warmer climate. Warmer weather in arctic areas melts the ice caps and in turn, causes sea level rise. A rise in sea level will take time, but once it occurs, major coastal and port cities can be wiped out. Melting ice caps also decreases the amount of freshwater on the Earth. Not only is weather effected, but so is the atmosphere. Excess gases in the atmosphere trap heat and then release it on to Earth’s surface, causing the heating of the surface. In the *British Medical Journal*, the author explains, “Excess carbon dioxide, methane and other gases which trap heat are accumulating in the troposphere because of the scale and type of human economic activity.” Climate change is in every aspect of life, even if you do not think it is.

Climate change is a very complex problem, and therefore requires complex solutions. For many years, many countries across the world have created acts and panels to help combat climate change, but they always seem to turn out with little success. A timeline on the history of climate change states that the National Climate Program Act was created and passed in 1978 but was labeled as “inadequate.” The same timeline also highlights the creation of the Intergovernmental Panel on Climate Change (IPCC), founded in 1988. As climate change becomes more of a

worldwide issue, tons of laws have been created. Simon Evans from Carbon Brief adds “There has been a 20-fold increase in the number of global climate change laws since 1997, according to the most comprehensive database of relevant policy and legislation.” The addition of many new laws is a light at the end of the tunnel, but sometimes they do not work as intended. Although lots of new acts exist, a warming climate is still a real threat. A big of example from this is from my personal knowledge. In AP Environmental Science class during my senior year of high school, I learned about the destruction of the Florida Everglades. The Everglades act as a natural water purification system, reduce floods, provide drinking water, refill aquifers, and absorbing excess nutrients. As the United States continues to develop, more infrastructure and housing developments are destroying the Everglades. This goes to show that many of these laws are not helping in protecting the environment. These acts can be helpful, but exposure to the issue is where real solutions can be made.

Climate change continues to become a major problem worldwide, which is clearly bad, but this also means many new people are becoming exposed to the issues and impacts that climate change is having on the world. In my previous paragraph, I speak on how underdeveloped countries are struggling to keep up with the technological demand to combat climate change. Along with aiding countries in fighting climate change, I think bringing awareness to these countries will benefit the struggle against climate change greatly. When people are exposed to new eye-opening information and perspectives on different issues, they tend to or may think about changing their viewpoint on the issue. Giving evidence and new information to these people. will give them the chance to see climate change as a bigger issue and start to live a more sustainable life and even theorize and come up with new innovations that can help stop climate change. In Dennis Patrick O’Hara and Alan Abelsohn’s journal *Ethical*

Response to Climate Change, the authors state “With a growing understanding of the planet as a self-contained and evolving ecosystem, we realize that we are derivative from and inescapably dependent upon Earth's ecological systems, that it is not possible to have healthy humans on a sick planet.” I believe that this realization will make people view climate change as the serious threat it is.

Horst Rittel and Melvin Webber came up with the term “wicked problem” to define issues that are extremely complex, with many smaller issues that branch out from the one big issue. They claim that there is no right or wrong solution to these problems, and that is what makes climate change a wicked problem. Climate change brings about many smaller issues that catalyze a warming climate. Cultural differences tend to be a difficult factor in combating climate change, as many countries do not have the technology and exposure to fight global warming. The environment continues to be damaged by climate change, with excess greenhouse gases being trapped in the atmosphere warming the globe and causing water stress, drought, severe weather, and rising sea levels. Increased air pollution is causing increased respiratory issues and warmer weather is allowing infectious diseases to spread. Climate change is an extremely difficult issue to understand but allowing more people to understand this complex issue will allow for innovation and more sustainable lives. With climate change continuing to worsen, I hope the person reading this will start to act, in their lives and others, to help combat the wicked problem of climate change.

Works Cited

1. Abbasi, Zakeer, and Allah Nawaz. "Impact of Climate Change Awareness on Climate Change Adaptions and Climate Change Adaptation Issues." *ProQuest*, Pakistan Journal of Agricultural Research, Sept. 2020, search.proquest.com/pqrl/docview/2442846294/C8C832956039470BPQ/1?accountid=11920.
2. Butcher, Lola. "Climate Change and Health." *CQ Researcher*, 29 Nov. 2019, library.cqpress.com/cqresearcher/document.php?id=cqresrre2019112900&type=hitlist&num=0.
3. Dove, Edward-Isaac. "Al Gore: America Is Close to a 'Political Tipping Point' on Climate Change." *The Atlantic*, Atlantic Media Company, 3 Jan. 2019, www.theatlantic.com/politics/archive/2019/01/al-gore-q-climate-change-and-2020-democrats/579340/.
4. Evans, Simon. "Mapped: Climate Change Laws around the World." *Carbon Brief*, 6 Aug. 2018, www.carbonbrief.org/mapped-climate-change-laws-around-world.
5. *Global Warming Timeline*, Feb. 2021, history.aip.org/climate/timeline.htm.
6. Hulme, Mike, and John Turnpenny. "Understanding and Managing Climate Change: The UK Experience." *Jstor.com*, *The Geographical Journal*, June 2004, www.jstor.org/stable/3451587?seq=1#metadata_info_tab_contents.
7. Hulme, Mike. "Geographical Work at the Boundaries of Climate Change." *Jstor.com*, *Transactions of the Institute of British Geographers*, Jan. 2008, www.jstor.org/stable/30131204?seq=1#metadata_info_tab_contents.
8. Li, Wenjing, et al. "Climate Change Risk Perceptions, Facilitating Conditions and Health Risk Management Intentions: Evidence from Farmers in Rural China." *Climate Risk Management*, Elsevier, 9 Feb. 2021, www.sciencedirect.com/science/article/pii/S2212096321000127.
9. O'Hara, Dennis P., and Alan Abelsohn. "Ethical Response to Climate Change." *Jstor.com*, Indiana University Press, 2011, www.jstor.org/stable/10.2979/ethicsenviro.16.1.25?Search=yes&resultItemClick=true&searchText=climate+change+awareness&searchUri=%2Faction%2FdoBasicSearch%3FQuery%3Dclimate%2Bchange%2Bawareness%26acc%3Don%26wc%3Don%26fc%3Doff%26group%3Dnone%26refreqid%3Dsearch%253Ae8ec87b2045add9b1c3904714e16e741&ab_segments=0%2Fbasic_search_gsv%2Fcontrol&refreqid=fastly-default%3A059d9c19910a4064e60b9b48395b28d0#metadata_info_tab_contents.
10. Pop, Lulia. "A First Hand Account of Climate Change." *Medium*, Medium, 21 Dec. 2017, medium.com/@marmmo14/a-first-hand-account-of-climate-change-186c77ba2bc0.
11. Rittel, Horst, and Melvin M. Webber. *Dilemmas in a General Theory of Planning*. Elsevier Scientific Publishing Company, 1973, kud21.kutztown.edu/d21/le/content/3015029/viewContent/24304865/View.
12. Zhang, Shenglu, and Chao Yang. "Highly Reflective Algae for Enhancing Climate Change Resilience in Rice Production." *EBSCOhost*, Association of Applied Biologists, 15 Dec. 2020, web.b.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=4&sid=54212b56-49fd-4734-a3c6-6fa00ba44623%40sessionmgr103.