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ENG 1121

Word Count: 1837

U2 Annotated Bibliography

“What are the effects of Climate Change?”

 In the society that we live in today, one of the “hottest topics” that is discussed is climate change. It has been an ongoing issue for many years, not only in the US, but globally. It has even been a topic of debate between the highest supreme court leaders of our country. Climate Change has raised many concerns due to the fact that it is primarily caused by the burning of fossil fuels and the emission of greenhouse gases. This is known as the phenomena of global warming. The long-lasting effects of global warming are important to keep an eye on because if not monitored, they can harm us as a humanity. This is all a byproduct of coastal flooding, increase in precipitation and extreme weather events, and lastly, forest fires. Forest fires lead to air pollution which hurts the quality of the air. This air pollution has now become a huge issue because it poses severe health risks to individuals. Earth's temperatures are increasing rapidly throughout the globe. This has been causing rising concerns in the arctic as well as areas with already high sustained temperatures. The arctic has become the home to a plethora of melting glaciers, and furthermore, the reason for the rise in sea level. Areas with pre-existing high temperatures, such as Arizona or Florida are now more likely to experience those temperatures to increase at a significant rate resulting in heat waves. Heat waves are only another addition to the ongoing concerns of climate change.

**Bill Nye. (2015, December 2). *Climate Change 101 with Bill Nye | National Geographic*.**

**YouTube.**[**https://www.youtube.com/watch?v=EtW2rrLHs08**](https://www.youtube.com/watch?v=EtW2rrLHs08)

 Throughout history, and due to earth’s orbit climate change has caused earths temperatures to rise by “1.2℉- 1.4℉.” Human Activity is the major reason for climate change. Humans are increasing the emissions of greenhouse gases because of the burning of fossil fuels. Greenhouse gases collect heat acquired from the sun resulting in the earths temperatures to rise. The increase of ocean temperatures has impacted life at the bottom of the ocean as it impacts fish and other living sea creatures. At the same time, sea levels are rising at an all-time high, due to the fact of increase in the water temperature. The melting of glaciers is another reason why the sea levels are rising. Between 2002 and 2005 “36 cubic miles of lost ice” occurred. Due to the melting of the ice, it exceeds the water capacity of the ocean, and then when a tropical storm or hurricane hits, the ocean cannot hold that excessive water therefore, resulting in coastal flooding. The increase of temperatures is leading to deadly heat waves and increased occurrence of extreme weather events.

We play a major role in climate change and we are the ones that have to commit to change in order to prevent the rising of temperatures. Climate Change hurts us in ways like no other. Not only does it hurt us in the increase risk of health issues and the overall health of our planet. It can hurt us economically as well. To commit to change we have to make individuals aware of the situation at hand, if you bring an economic perspective you can create a strong argument to get others to commit to the change that is needed. We have to stop the emission of greenhouse gases. The rise in sea level is increasing the risk of coastal flooding. Costal flooding can destroy homes and cost a fortune to repair. Therefore, we need to alter our everyday lives in ways to use renewable sources and stop the burning of fossil fuels.

Quotation: “The combination of greenhouse gases, temperatures heat radiated from the sun, the warmer our planet gets the warmer our oceans get…A long term change in Earths overall temperature with massive and permanent ramifications.” (1:27-1:38)(3:31-3:38)

**Haider, Wolfgang, et al. “Shibboleth Authentication Request.” *Citytech.Ezproxy.Cuny.Edu*,**

**27 Oct. 2017,**

**web.b.ebscohost.com.citytech.ezproxy.cuny.edu/ehost/pdfviewer/pdfviewer?vid=8&sid=a92**

**b2094-ee07-47a0-9c38-4a925decbf3f%40pdc-v-sessmgr02. Accessed 21 Oct. 2020.**

 There has been an increased rate of forest fires occurring throughout the world. They are spreading at a more rapid pace due to climate change. Forest fires are causing harm to hundreds of acres of land each day. However, at the moment this is only a minor problem compared to the potential long-term problem. The smoke and ash of the fires are hurting our atmosphere causing poor visibility and hurting air quality. Haze and smoke are the reason for air pollution. The difference in visibility levels are an example. In the survey performed by the NRC Research Press, they took photographs at the Abbotsford International Airport displaying the different conditions of visibility (pg. 1245). Wildfires are the main reason why air pollution exists. Air pollution creates a health risk to individuals, at the same time creating a risk of poor visibility conditions. The DCE was hired to explore options on ways to improve air quality in this survey. It may cost families a few extra dollars a year to invest in this experiment however, studies show that those few dollars a year can improve air quality by 20% of better visibility.

Wild fries are just another effect of climate change. They are everlasting growing issues that we need to solve in order for us to not witness it impact our long-term living conditions. The air we breathe in is not as clean as in the past therefore, if the air quality continues to worsen it can lead to advanced health risks and poor conditions of visibility. This has created warmer, drier conditions, increasing the dry period of the fires. This is a current problem that is ongoing in our society today. Wildfires are expanding at an unbelievable rate where it has to come to a point where local fire departments cannot fight the fires. Therefore, we need to find a way to prevent wildfires, so the fires do not continue to expand and hurt our communities during the present time. This will remain an ongoing issue that will only hurt our atmosphere in the long run, but in the short term it can expand to burn enough land where it can put our homes at risk.

Quotation: “…growing incidence of forest fires and related smoke and haze…improving visibility might confounded with a preference for perceived health benefits with improved health quality.” (Pg. 1244)

**Tabari, Hossein. “Off Campus Access @ City Tech.” Scientific Reports**

[**login.citytech.ezproxy.cuny.edu/login?qurl=http://web.b.ebscohost.com%2fehost%2fpdfviewer%2fpdfviewer%3fvid%3d5%26sid%3dc6c064ad-1d35-4e85-a97d-4e4e21f75735%2540sessionmgr101**](http://login.citytech.ezproxy.cuny.edu/login?qurl=http://web.b.ebscohost.com%2fehost%2fpdfviewer%2fpdfviewer%3fvid%3d5%26sid%3dc6c064ad-1d35-4e85-a97d-4e4e21f75735%2540sessionmgr101)**.**

 This article describes the problems with Climate Change and how flooding has a major impact on it. The differences in temperatures has led to the rising numbers of more frequent perception on landfall. The numbers are only expected to increase in the years to come. Therefore, this can hurt our ecosystem in many different ways. Flooding is a main issue when it comes to frequent perception, the more perception the more likely of a chance land becomes flooded. This problem leads to more issues environmentally. Perception causes runoffs to change because of the soil becoming more dampen, the inability of the soil to acquire that extra water results in not allowing it to runoff from land. Due to the geographical features of the earth and some states not surrounded by a large land mass can lead to over-flooding in the Northern Hemisphere. The differences in season and months can have an impact on how severe the flooding can be. For example, if we were in the summer months that are hot and humid, we would need more frequent rainfall to keep the temperatures from rising to high. Global warming has led to more frequent rain fall in the areas where there is a higher moisture availability. However, the drier areas where they usually do not receive much rain fall are now experiencing little to no rain fall which is hurting the environment. Climate Change is hurting those environments because they are now facing a shortage on water availability.

This is a very troubling time we are living through with climate change. Sadly, severe flooding is only one of the issues that are hurting our environment and can only hurt us more in the long term. Floods quickly fill in coastal areas over a short period of time which puts individuals and their homes in danger to survive. This would result in a major economic crisis as it would be a disaster to recover from a terrible tropical storm or hurricane. In many cases, insurance companies will not have the funds to cover families if more extreme weather storms such as hurricanes were to occur more often. We have to decrease the risk of flooding and the shortage on water availability in certain areas. To do this we all have to commit to some change in our everyday life. We can purchase more efficient cars, for example, instead of gasoline cars we can purchase an electric car to stop the burning of fossil fuels that are hurting our atmosphere.

Quotation: "The results show a clear connection of the flood and extreme precipitation changes with spatial and seasonal water availability, pointing to a larger increase for the regions and seasons with higher water (moisture) availability. Limited climatological water availability in dry environments may offset extreme precipitation increases, while in water-abundance conditions amplified atmospheric moisture conver-gence can intensify the effects of extreme precipitation" (Pg. 2 Scientific Reports)

 Fundamentally as represented through the evidence, climate change is an ongoing issue in this country and will be a topic of discussion for many years to come. If we do not commit to changing our actions sooner rather than later, we will see the true effects of climate come to fruition. Its ability to contribute to extreme weather storms, heat waves, and heavier precipitation can be seen as the driving forces of what can make it last for longer periods of time. This all plays a huge role in our daily lives as it poses serious health risks for every individual. Each of these issues are linked to one another and are all fundamental steppingstones which lead to climate change becoming a major threat to human health. All in all, it is crystal clear that climate change and global warming will not take a backseat on its own. We need to step up. It is up to us as a world, a nation, a society, and a community to look in the mirror and make the necessary changes that we can, if we want the world to continue as we know and love. Afterall, it is our environment, and some of these things are in our control. Whether it's the cars that we drive, or the factories in which we manufacture from, we must acknowledge that our decision making has taken its toll on the environment. If we as a unit don’t come together to save what we know needs saving, then we prove our selfishness. Above all, who in the world are we without the environment? It is everything to us, and it's our job to protect it.