How Carbon Emissions Are Impacting Climate Change

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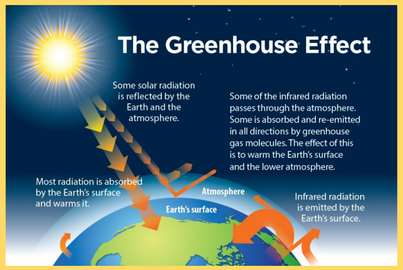
INTRODUCTION

The climate change that is currently taking place in the world is due to various factors of both human and natural origin. As the temperature rises, there are the earth is affected in many ways, resulting in more floods, more rain, droughts, freezing, and natural disasters (Hickey, 2017). This is especially due to human activities, such as releasing large amounts of carbon dioxide into the atmosphere along with greenhouse gases from the burning of fossil fuels. The effects of climate change can lead to many ecosystems falling apart, and can even lead to the destruction of the food chain (Pearlstein 2010). It can also affect day to day life such as the water humans drink, and agriculture, which will hurt the economy. Recently, the current hurricanes that have occurred in the U.S have been more severe than they should have according to scientists. In a recent New York Times article, Dr. Hayhoe, an atmospheric scientists, states that “We need to understand what’s at stake, because if not, we won’t act in order to prevent consequences
from happening” (Friedman, 2017).



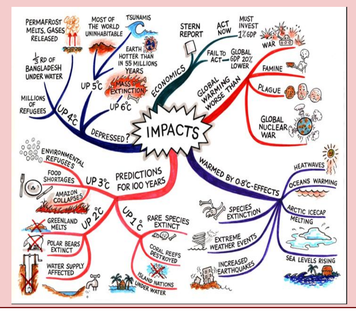
DISCUSSION, ANALYSIS, AND EVALUATION

➢Climate change is being impacted by the high amounts of carbon emissions being released into the atmosphere.

➢Figure one reveals the global carbon emissions exponentially growing each year.

➢Figure two reveals the temperature being the highest its ever been and increasing at a high rate.

- When carbon emissions are high, so is the average temperature of the world, which will lead to the heavy impacts of climate change.



RESEARCH METHODOLOGIES

- Correlational research (comparing and contrasting with numbers) was performed using databases from NASA that were provided by mentor Robert Cormia.
- Additionally, description research was done through visiting various websites and collecting data points in order to make graphs.
- Next, the data analysis technique used was summarizing by viewing the graphs and making a stance.

DATA AND FINIDNGS

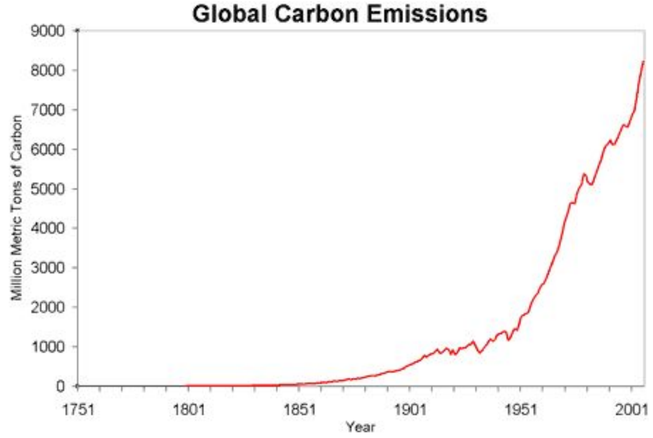


Figure 1

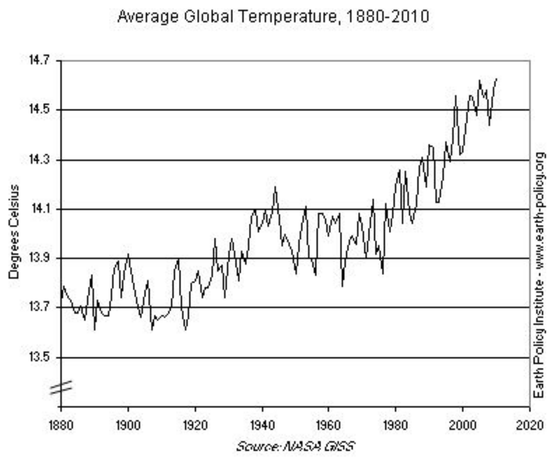


Figure 2

Figure 1: This graph discloses the average global temperature starting from the year 1880 to what is predicted to be in 2020.

Figure 2: The graph reveals annual carbon emissions on the rise and exceeding expectations.

CONCLUSIONS, IMPLICATIONS & NEXT STEPS

Climate change has really taken effect in the world over the last century. It is the unusually rapid increase in the Earth's average surface temperature over the past century, primarily due to the greenhouse gases released as people burn fossil fuels. Carbon emissions are emissions of carbon dioxide from burning oil, coal and gas for energy use. Today, according to Dr. Kirtman, “the atmosphere contains more greenhouse gas molecules, so more of the infrared energy emitted by the surface ends up being absorbed by the atmosphere” (Mooney, 2017). By increasing the concentration of greenhouse gases, we are making Earth's atmosphere a more efficient greenhouse. A greenhouse gas is a gas that contributes to the greenhouse effect by absorbing infrared radiation, e.g., carbon dioxide and chlorofluorocarbons.

The climate has cooled and warmed throughout Earth’s history. However, rapid warming like we see today is unusual in the history of our planet. Some of the factors that have an effect on climate, like volcanic eruptions and changes in the amount of solar energy, are natural. Climate can change if there is a change in the amount of solar energy that gets to the Earth. When snow and ice melt, Earth's climate warms, less energy is reflected, and this causes even more warming. There are many different ways that plants, animals, and other life on our planet can affect the climate. Some can produce greenhouse gases that trap heat and aid global warming through the greenhouse effect (Bradley 2009). Carbon dioxide is taken out of the atmosphere by plants as they make their food by photosynthesis. During the night, plants release some carbon dioxide back into the atmosphere. Cars and trucks can hurt the climate by releasing carbon dioxide when fossil fuels are burned to power them (Bradley, 2009). When wildfires occur, carbon dioxide is released into the atmosphere. However, if a forest of similar size grows again, about the same amount of carbon that was added to the atmosphere during the fire will be removed. Some effects that scientists have predicted in the past would result when global change have occurred: loss of sea ice, accelerated sea level rise, and more intense heat waves (Hawkens, 2011). Scientists have confidence that global temperatures will continue to rise for decades to come, largely due to greenhouse gases produced by human activities.

ACKNOWLEDGEMENTS / REFERENCES

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