**Global Warming**

**Introduction**

Global warming results in a heated debate, especially at the political level, thus leading to further citizens and the appointed representatives' division. The phenomenon of global warming is not well understood hence fostering controversies. Global warming is the moderate temperature rise of the earth's air. Global warming happens when carbon dioxide and other air contaminants escape in the atmosphere forming a layer that hinders solar radiation causing a rise of the earth's temperature (Hougton 9). According to Hougton (10), human activities such as fossil fuels' burning cause climate changes that contribute to global warming. Different areas are experiencing adverse climatic conditions characterized by high temperatures, indicating that global warming is real and happening.

**Background**

Hurricanes in Florida

Global warming is a leading factor in climate change. Climate change is a difference in the weather pattern caused by the rise of carbon dioxide levels. Hurricanes experienced in Florida is evidence that global warming is real. Hot air temperature resulting from global warming causes ocean water to heat and rise rapidly. Once the heated ocean water increases, it comes across cooler air that eventually condenses to form storms that result in rain or hurricanes. According to Elsner et al. (191), storms and hurricanes affect Florida mostly, with the Northwest Florida area being positively affected. Hurricanes were experienced in Florida from as early as 1523 and registered 159 hurricane cases before the 20th century. From 2000-2018, the state had recorded 80 more tropical hurricanes. The healthiest state hurricanes were experienced in 1935, 2018, and 1992. Hurricanes in Florida caused people and animal deaths, displacement, and destruction of homes, agriculture, businesses, and infrastructure (Elsner et al. 191-202).

Floods in New York

           Floods in New York can also be evidence of global warming being real. Global warming affects rainfall patterns. When sea or ocean vapor condenses, it falls in storm or rainfall form. Areas with high international impact experience a rise in the ocean, sea, and river levels that lead to dike breaching and riverine and coastal flooding. However, flooding can also occur as a result of poor drainage or land terrains. In New York, the most intense floods happened in 1913, 1955, 1972, 1996, and 2006. The 1913 flooding affected Genesee, Mohawk, and Hudson rivers, characterized by an increase of the water levels by 21.45 feet and approximately 240,000 cubic feet per second of flood flow. The 1955 flooding hit the Southeast part of New York, affecting the Readout Creek and Wallkill river basins. Destruction of rail lines, highways, and bridges occurred, and typhoid infection was on the rise. 1972 flooding was weaker than the rest, and it came from the Gulf of Mexico and flowed to the northwestern part of New York. Few deaths and little destruction were recorded. 1996 was significant flooding that was characterized by snowpack melting and 2-4 rainfall inches. The flooding also had a substantial impact on The Susquehanna and Delaware water catchment areas. The three days of rainfall experienced in 2006 resulted in floods with 2-6 inches of rainfall amount approximation with 11-13 inches recorded in the Catskills' high points ("weather.gov").

Wildfires in California

           The wildfires in California also signify the notion that global warming is real. California is the leading state in wildfires with an estimated 8,194 fires, followed by Texas, North Carolina, and Georgia. According to Keeley and Syphard (4), some fires in California are wind-caused due to climatic change. Global warming leads to a temperature increase that facilitates drought. Drought fuels forest fires by creating drier and more fire-vulnerable situations, causing fire emissions to rise. Fumes and carbon dioxide emitted into the air foster further warming and temperature increase, which increases the extent of the fires causing much damage. The first California wildfire was first recorded in 1932, and they have become more frequent, extensive, and disastrous. 1953, 1961, 1970, 1991, 2003, 2006, 2007, 2009, 2012, 2013, 2017, and 2018 California fires were the most famous and largest even captured on record and 2003 wildfire recoding the deadliest and most destructive. California wildfires lead to death, evacuations, and destruction of lands, buildings, homes, and infrastructure (Keeley and Syphard 5-10).

           On the other hand, the issue of global warming may be unreal or not happening at all. Scientists such as Freeman Dyson, Ivar Giaever, and Will Happer contradict opinions regarding global warming and climatic change. Physicist Freeman Dyson together with Bjorn Lomborg and Kiminori Itoh, argue that human activities such as burning fossil fuels, animal rearing, and deforestation affect the climatic conditions but contradict the carbon-based theory. Freeman outlines that carbon-based speculation and contemporary models are very shallow to explain climate change well. Freeman says that what his contradicting scientists are stating as global warming is a good thing. Carbon dioxide is essential for plant growth. In reality, carbon dioxide is necessary for animal respiration and plant photosynthesis hence boosting growth. Plants absorb carbon dioxide from the air and integrate with water and light to form food substances such as glucose and oxygen. An increase in the amount of carbon dioxide in the atmosphere raises the photosynthesis rate. High carbon dioxide accumulation in the air makes crops more fruitful since photosynthesis depends on the sun's energy to manufacture sugar from carbon dioxide and water. A high concentration of carbon dioxide is hence significant (Lemonick).

Works Cited

"Flooding In New York". *Weather.Gov*, 2020, https://www.weather.gov/safety/flood-states-ny.

Elsner, James B et al. *Hurricanes And Climate Change*. Springer, 2010, pp. 191-202.

Hougton, John. *Global Warming*. Cambridge University Press, 2017.

Keeley, Jon E., and Alexandra D. Syphard. "Twenty-First Century California, USA, Wildfires: Fuel-Dominated Vs. Wind-Dominated Fires". *Fire Ecology*, vol 15, no. 1, 2019. *Springer Science And Business Media LLC*, doi:10.1186/s42408-019-0041-0. Accessed 23 Oct 2020.

Lemonick, Michael. "Freeman Dyson Takes On The Climate Establishment". *Yale E360*, 2009, https://e360.yale.edu/features/freeman\_dyson\_takes\_on\_the\_climate\_establishment.