

# The reality of global warming

[Environment](#), [Climate Change](#)



The Reality of Global Warming Cheryl H. Frazier Axia College of University of Phoenix COM 125 Utilizing Information in College Writing Allen Mueller July 22, 2007 Abstract Since the Industrial Revolution our world has been affected by Global Warming. Increasing humans, vehicles, and electricity have put our earth in a position where we do not know the outcome of our mistakes. Many scientists agree this situation has escalated within the past decades. Studies show that fossil fuels have increased in the atmosphere. The Earth's natural cycle has been interrupted which affects the climate, land, ocean, and every living thing. Animals of the land and ocean are migrating towards cooler temperatures. Humans did not do this intentionally, but because of the outcome of the man-made machines, it is time to redirect our priorities. This situation will not get any better if people continue to think that it is a part of nature; which the reality is it is a human caused problem.

The Reality of Global Warming Although, some people think Global Warming is nature at its best, research shows that humans are a contributing factor. As the world population reaches 6, 606, 526, 224 (U. S. Census Bureau) for the year of 2007, it is hard to believe humans have no blame to the Earth's climate change. Global Warming is the cause of climate change, which the greenhouse gases stay on the earth's atmosphere and traps the heat. Since the Industrial Revolution from the seventeenth century, machines have dominated the world forever changing the climate. Man-made machines like the steam engine (trains), factories, and automobiles have required the use of fossil fuels. Some scientists are skeptical about the whole idea about Global Warming and they believe the earth goes through warming and cooling periods, which makes sense, but the alteration of the earth can have

consequential changes. The earth is known for natural cycles, but from recent studies " Now, humans have increased the amount of carbon dioxide in the atmosphere by more than a third since the Industrial Revolution. Changes this large have historically taken thousands of years, but are now happening over the course of decades" (National Geographic, 1996-2007). The affects of Global Warming would be catastrophic to every living thing on this Earth, if not contained within this century. This graph shows an estimated increase of the world population within the last hundred years. From 1900 to 1930 the population took 30 years to reach 2 billion. From 1940 to 1970 it took also another 30 years to reach 3. 7 billion people. From 1980 to 2006 the world population doubled within the past 30 years to 6. 5 billion. The Earth has been changing for millions of years, but within the last hundred years it is no surprise the more humans there are, the more fossil fuels will be used. Never in the history of the Earth has there ever been this many people. Automobiles, factories, and electricity " have spewed billions of tons of greenhouse gases into the atmosphere, and these gases caused temperatures to rise between 0. 6°C and 0. 9°C (1. 08°F to 1. 62°F) over the past century" (Earth Observatory, 2004). With over 6. 6 billion " People burning gasoline and other fossil fuels put more carbon dioxide into the atmosphere than the planet can recycle through normal exchanges among plants, animals, land, water and the air, say climate scientists" (Stoffer, 2007). Even the smallest change in the temperature can have a significant impact on the environment. In the graph below it shows the change in temperatures in the last one hundred years. " The rapid rise in greenhouse gases is a problem because it is changing the climate faster than some living

things may be able to adapt" (National Geographic, 1996-2007). This graph shows the difference between a hundred years of Global Temperature Changes. Since the 1900's the temperature has risen about 1 degree in Fahrenheit, and in the future the temperature will continue to rise. By the year 2100 the temperature will rise about 1.4 to 6.3 degrees Fahrenheit if nothing changes about Global Warming; if the CO<sub>2</sub> levels are contained by 2100 the temperatures will rise about 1 to 3.6 degrees Fahrenheit. The greenhouse effect is when " these gases let in light but keep heat from escaping, like the glass walls of a greenhouse" (National Geographic, 1996-2007). This is how it works: The Sun reaches the Earth, roughly 30 percent of it is reflected back into space by clouds, atmospheric particles, reflective ground surfaces, and even ocean surf. The remaining 70 percent of the light is absorbed by the land, air, and oceans, heating our planet's surface and atmosphere and making life possible (Earth Observatory, 2004). The history of the greenhouse effect dates back to " 1824" from " Joseph Fourier" who " calculated that the Earth would be much colder if it had no atmosphere" and the " average" temperature would be " 60 degrees Fahrenheit cooler" (National Geographic, 1996-2007). Another Swedish chemist " in 1895" named " Svante Arrhenius" found " that humans could enhance the greenhouse effect by making carbon dioxide, a greenhouse gas," and that would eventually have started the " 100 years of climate research that has given us a sophisticated understanding of global warming" (National Geographic, 1996-2007). Of all the " achievement of the past 120 years was learning how to burn gasoline and diesel fuel to propel cars. But scientists who study global warming say the process has a downside" (Stoffer, 2007).

Carbon Dioxide (CO<sub>2</sub>) can be good and bad. The good thing about carbon dioxide is plants inhale the gas, and it in turns makes oxygen for every living thing on this planet; it also helps to " maintain moderate temperatures" (Stoffer, 2007). The bad thing about it is if there is too much of the gas in the air it has nowhere else to go but make more heat in the atmosphere. The deforestation of trees has led carbon dioxide to be less absorbed. Since the other gases like methane, and nitrous oxide " concentrations are much lower than CO<sub>2</sub>, none of these gases adds as much warmth to the atmosphere as CO<sub>2</sub> does" (National Geographic, 1996-2007). Humans are producing more carbon dioxide than the Earth can handle which ultimately changes the Earth's climate. As the weather becomes unpredictable, looking back for the last one hundred years the weather has become more severe, like hurricanes, droughts, storms, floods, and warmer weather. " Category 4 and 5 hurricanes worldwide has nearly doubled over the past 35 years" (Glausiusz, 2007). Droughts will become more intense just like the drought in the Southwest of the United States, " The white ring of bleached rock on the once-red cliffs that surround Lake Powell indicate the drop in water level over the past decade, the result of repeated winters with low snowfall" (Earth Observatory, 2004). Storms around the world have shifted the rain and snow. Flooding will occur due to the melting of the glaciers; " The problem is serious because as much as 10 percent of the world's population lives in coastal areas less than 10 meters (about 30 feet) above sea level" (Earth Observatory, 2004). The warmer weather affects the melting of ice which " includes mountain glaciers, ice sheets covering West Antarctica and Greenland, and Arctic sea ice" (National Geographic, 1996-2007). As the

warmer weather continues throughout the world, studies show from the " Intergovernmental Panel on Climate Change (IPCC) estimates that sea levels will rise between 0. 18 and 0. 59 meters (0. 59 to 1. 9 feet) by 2099 because of expanding sea water and melting glaciers" (Earth Observatory, 2004). " The Larsen-B Shelf on the Antarctic Peninsula collapsed over 35 days early in 2002, prompted by 3°C of warming since the 1940s" (Earth Observatory, 2004). When the sea levels rise, coastal areas will be affected by flooding and fresh water as well. Fresh water will not be as abundant as it is now; " If the Quelccaya ice cap in Peru continues to melt at its current rate, it will be gone by 2100, leaving thousands of people who rely on it for drinking water and electricity without a source of either" (National Geographic, 1996-2007). The flooding will cause infectious diseases like malaria, West Nile virus; mosquitoes carry these deadly diseases which come from unclean waters. Animals have noticed a change in the environment and are retreating to cooler areas. Recent studies show that " increases in temperature can push species toward the poles or to higher elevations, but for many animals, migration to a cooler habitat is impossible" (Schueller, 2005). Scientists predict that " up to one third of the 1, 103 plants and animals they studied could plunge into extinction by 2050" (Schueller, 2005). Polar bears are among the animals that could go into extinction because as the glaciers melt the bears are left stranded on the glaciers to die. Among the list of animals that will be affected, penguins " have fallen from 32, 000 breeding pairs to 11, 000 in 30 years" (National Geographic, 1996-2007). Whales are migrating " farther north" as the temperatures rise in the ocean (Glausiusz, 2007). Animals will have a hard time adapting, but for those who do not have

a chance will likely become extinct. The Earth does have natural cycles, but people have speed up the process with fossil fuels and now it is time to correct the problem. Some scientists argue that Global Warming is a theory made up to scare and make money off of people. " For many years, the public relations apparatus of big coal and big oil has argued that global warming was nonexistent. Since 1991, the fossil fuel lobby has spent many millions of dollars to persuade the public, the media and policy makers that global warming is a non-issue. That propaganda campaign—especially as it was articulated by a tiny handful of scientists called " greenhouse skeptics" (many of whom received large amounts of undisclosed funding from fossil fuel interests)— centered on the claim that climate change was not scientifically proven" (Gelbspan, 2001). As the issue becomes well known throughout the world these " skeptic scientists" have argued that the IPCC report had been altered by the 1000 scientists of the world to make a quick buck. The " greenhouse skeptics" (Gelbspan, 2001) theories have neither been proven to say they have scientifically proven that Global Warming is not real. So to help us better understand Global Warming, scientists have developed technological models for the misconceptions that " greenhouse skeptics" (Gelbspan, 2001) have. Technology has become the key ingredient of monitoring the earth. " Even if we stopped emitting greenhouse gases (GHGs) today, the Earth would still warm by another degree Fahrenheit or so" (National Geographic, 1996-2007). Climate models help to understand what is going on with the earth and the changes that are occurring. Changing the way humans live, and what is " recommended would require lifestyle changes in the developed world, affecting everything from the type

of products we consume to the type of occupations we pursue" (Clark, J. R., Lee, D. R., 2004). Reducing the use of emissions from automobiles, electricity, and factories by half would help. Using wind and solar power for electricity, or using bio-fuels for fuel efficient cars, or planting more trees that would help to absorb the carbon dioxide are some ways of changing lifestyles. Helping to make this Earth a better place for all will of course take time, but in the long run will help future generations. In conclusion, humans are a contributing factor in the Earth's climate change; the use of fossil fuels have had a long effect to the environment and will continue to change, if no action is taken on behalf of the human race. The world population has drastically changed within the last century and shows no signs of slowing down. For millions of years the Earth has always changed, but since the Industrial Revolution and the population growth, Global Warming has speed up within the last decades and gasoline and electricity have never been used like today. Global Warming is not a hoax, man-made machines have pumped more fossil fuels into the atmosphere than the earth can handle. For some time now, scientists have been stressing that global temperature changes caused by human emissions have changed the environment drastically. The ice caps are melting, the weather is changing, plants and animals are relocating, and it is up to everyone to make a difference. Changing the progress of the world can be done, but the reality of Global Warming is, it is already here, now it is time to slow the progress and educate those who are willing to learn. References Clark, J. R., Lee, D. R. (2004 Spring). Global Warming and its dangers. *Independent Review*, 8(4), p591. Retrieved June 25, 2007, from Thomson Gale PowerSearch database. (2004, June). Earth



Observatory-NASA. Retrieved May 30, 2007, from Global Warming Web site: <http://www.earthobservatory.nasa.gov/>

Gelbspan, R. (2001). Global Warming Is a Serious Environmental Threat. *The Environment*. Retrieved July 15, 2007, from Opposing Viewpoints Resource Center.

Glausiusz, J. (2007, January). 20 Earth Science: global warming leaves its marks. *Discover*, 28(1), p38. Retrieved June 17, 2007, from Thomson Gale PowerSearch database.

(2007). Global Warming Statistics. Retrieved July 4, 2007, from AOL Research and Learn Web site: <http://reference.aol.com/planet-earth/global-warming/statistics>

Schueller, G. H. (2005, January). For the earth, the heat is on: Overwhelming atmospheric evidence supports the reality of global warming-and humans' role in causing it. *Popular Science*, 266(1), p52. Retrieved May 31, 2007, from Thomson Gale PowerSearch database.

Stoffer, H. (2007, March). The Science of Global Warming. *Automotive News Europe*, 12(6). Retrieved June 17, 2007, from EBSCOhost database. (1996-2007). What is Global Warming? Retrieved June 17, 2007, from National Geographic Web site: <http://www.nationalgeographic.com/index.html> (2006, August 24).

World Population Information. Retrieved June 17, 2007, from U. S. Census Bureau Web site: <http://www.census.gov/ipc/www/world.html>