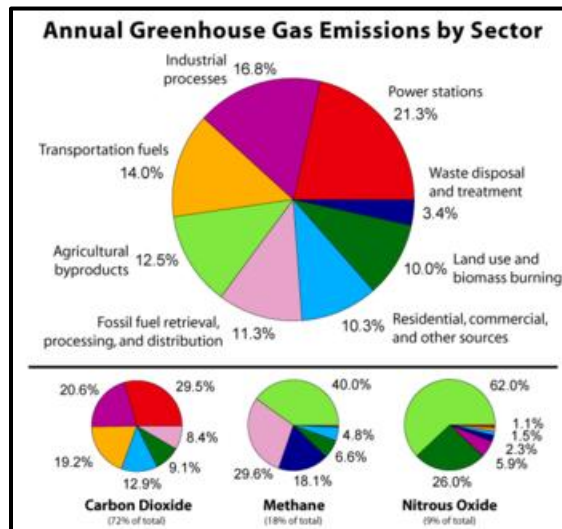


# Global Warming and Climate Change

There is a danger to the Earth present today that just 200 years ago did not exist to the extent it does now – global warming. Since the dawn of the Industrial Revolution, for the first time human beings have become the biggest contributor to the slow demise of our planet through the use of fossil fuels and the byproduct they produce – toxic gases that are trapping heat in the Earth’s atmosphere, causing temperatures to rise. Ecosystems across the globe are being threatened from the climate change that is occurring as the result of this global warming. It is an issue that must be taken seriously so that measures can be taken to slow the effect that increasing temperatures are having on our planet before it is too late.



Historically these gases have balanced naturally in the environment for thousands of years, but today, “it is becoming clear that humans have caused most of the past century’s warming by releasing heat-trapping gases as we power our modern lives”<sup>1</sup> primarily through the burning of fossil fuels. (See above chart taken from Time for Change.org. ) The burning of these ancient

<sup>1</sup> <http://environment.nationalgeographic.com/environment/global-warming/gw-overview>

compounds generates the following “Greenhouse Gases” including, but not limited to, nitrous oxide, methane, hydro fluorocarbons, per fluorocarbons, sulfur hexafluoride, water vapor, and carbon dioxide. Although sunlight is still able to radiate through the gases, the increasing heat in the atmosphere is not able to escape, and is virtually stuck, warming the planet to the point that scientists fear, should the temperature continue to rise, even by a few more degrees, polar ice caps will melt rapidly enough that life as we know it may cease to exist.

The effects of global warming are being felt across the planet, and range from one extreme to another depending on geographic location and proximity to water, and the ocean currents that influence a particular regions climate. In the poles, glacier ice melt is causing sea levels to rise, greater worldwide coastal erosion, and higher than normal precipitation patterns. The following diagram from Google images illustrates the changing oceanic currents:



This change in current causes warmer water to flow toward the poles, and cooler water to flow toward the equator, disrupting weather patterns. Worldwide we are already experiencing extreme weather, including an increase in intensity and frequency of hurricanes and tornados, with excessive precipitation and flooding as a result. The flooding and resulting stagnant water

increases the spread of waterborne illnesses such as cholera and malaria, particularly in countries already struggling with these diseases. The hardest hit areas are expected to be those that are already impoverished and suffer from lack of clean water resources. Fragile ecosystems may be irreparably damaged, even lost to extinction.

The elements that make up the fossil fuels (such as coal and oil) that, when burned, cause the release of the greenhouse gases, are actually the remains of plants and animals from the last several million years. They are rich in carbons and the other compounds that clog the atmosphere. The gasoline we use to power vehicles and airplanes, the coal we use for electricity and heat, they all emit toxins into the environment that not only remain trapped in the air we breathe, but in the water we drink, slowly manipulating the environment, and before long will have dire consequences, culminating inevitably in the next mass extinction.

This, of course, is already taking place. Scientists have been concerned about the potential catastrophic damage from global warming for the last several decades. They have been in the process of creating global awareness of climate change, forming in 1988 the Intergovernmental Panel on Climate Change (IPCC), in which representatives from nations across the world assemble to discuss strategies to combat the effects of global warming. These “experts comprise 3 working groups” that “address 1. the scientific aspects of the climate system and climate change, 2. the impacts of and adaptations to climate change, and 3. the options for the mitigation of climate change.”<sup>2</sup> The intention is to educate human beings not only on an international level, but individually, regarding our imminent doom should we continue to plunder the resources Mother Earth offers us the way we have done the last few hundred years. Her demise is in the foreseeable future if we do not take preventative, precautionary safety measures now.

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<sup>2</sup> The Impact of Climate Change, Carolyn Fry, p. 31

Obvious solutions to this danger include reducing our “carbon footprint” – limit the amount of gases we have control of releasing into the air by decreasing transportation and manufacturing emissions, increasing the availability of wind and solar energy, prevention of deforestation and unnecessary waste, just to name a few. Many of these can be done individually, and collectively can make an incredible difference. These do become more challenging, however, as the world’s population continues to soar and the need for energy resources rises. Yet there is much at stake. Education and awareness are of utmost importance to acceptance and understanding of this issue. Continued study, effective management and timely exploration of safer, yet realistic options for alternative sources of energy renewal and growth are urgent, immediate to our survival.

*The issue of global warming is one that I feel I have been admittedly, ashamedly ignorant of. Although I have been made aware of it, it was not something that was discussed in school when I was young as it is now for me and my children. As with all things considered on a “global” scale, I incorrectly assume that an individual such as myself can make little difference, or matter much. Yet that is always how great things happen...1 person begins something that can have far reaching affects beyond their wildest dreams. I am a believer in leading by example, not in “do as I say, not as I do”. Each one of us has the ability to make a difference and help in this cause. The biggest changes begin with “baby steps”, and we build on those. If every ONE can make even some minor adjustments and sacrifices to begin with, we may be able to inspire others with the success of our efforts. While reversing the effects of this problem may take longer and be harder than it took to get here, any change at this point is for the greater good, and necessary for the survival of our species. Do we not owe it to those that follow us? I know I want to do that for my children. I want to be an example, and I want them and their children, and their children, and so on for the next however many thousands*

*of years, to be able to enjoy what has been gifted to us for as long as they can. It is a beautiful gift! We need to keep it that way for them.*

## Bibliography

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