## Climate Change

Dr. Ray Bohlin looks at the science behind climate change alarmism and encourages you to be skeptical of what you hear from much of the media.

# Are Human Beings Threatening All We Hold Dear through Climate Change?

The phrase "climate change" can mean very different things. It can be a rallying cry against the shameful practice of burning fossil fuels that will cause supposedly imminent worldwide disaster. The climate change bandwagon is a way to bring about global cooperation as we fight against the danger of too much carbon dioxide in our atmosphere. OR, the climate change agenda is a way for scientists who are becoming increasingly political to push for a more socialistic policy on generating electricity. In this article I examine what's really going on with the science and make an argument for not believing anything you read or hear in the regular media.

There is no longer much of a middle ground. I have addressed global warming or climate change before, and I am becoming increasingly convinced that the entire enterprise of human-induced climate change is a monumental and brazen attempt to hoodwink the global public into thinking we have jeopardized our future, and drastic action is necessary.

Essentially, a group of climate scientists have used the power of the United Nations and their own reputations as scientists to proclaim that we must cut back severely on the use of fossil fuels, such as coal, oil, and gas. This will prevent the rising levels of carbon dioxide in our atmosphere from generating a runaway global warming that will lead to droughts, flooding, hurricanes, tornadoes, rising sea levels, etc., that will endanger our future on the earth.

This apocalyptic vision can seem quite threatening. Scientists are objective, right? They are not going to promote something the evidence doesn't support, are they? Well, scientists are human, and their worldview will affect their conclusions and I am convinced that some scientists are presenting a scenario of human-induced global warming that the scientific evidence simply does not support.

The supposed villain in this scenario is the gas carbon dioxide. You might not know that this natural and necessary gas is such a bad guy according to the doomsayers!

In this next section, I investigate the history of carbon dioxide in our atmosphere and the potentially negative and positive effects of increasing its concentration in the air we breathe.

### What's all the Fuss about Carbon Dioxide?

In this article I am discussing the possibility that humans, through the excess burning of fossil fuels, are jeopardizing the future of the entire planet. Previously this has been referred to as Anthropogenic (meaning human) Global Warming but is now referred to simply as Climate Change.

The evil villain in this scenario is carbon dioxide—what you get from burning coal, oil, and gas products. Carbon dioxide is known to be a greenhouse gas. No one disputes this. The relevant question remains, are humans putting too much carbon dioxide into the atmosphere, producing a warming that may not stop until the planet exceeds a livable temperature?

As I mentioned, carbon dioxide is a greenhouse gas. This means that when sunlight hits the earth's surface, some of that energy is radiated back into the atmosphere and captured by carbon dioxide. The carbon dioxide then remits this radiation as heat, warming the atmosphere. This is a good thing. Water,

 ${\rm CO_2}$ , methane and a few other gases allow the earth to keep enough of the sun's radiation and provide a cozy temperature for life around the earth.

But as we all know, there can be too much of a good thing. Many climate scientists are exclaiming that we have added too much  $\mathrm{CO}_2$  over the last 150 years too fast, and the resulting warming is jeopardizing the greenhouse balance.

The earth has warmed over the last 150 years by about 1 degree Celsius or 1.5 degrees Fahrenheit. But is carbon dioxide to blame?  $\mathrm{CO_2}$  levels rose from around 280 parts per million in 1900 to 400 parts per million today. There does seem to be a correspondence. However, we can obtain temperature data for the last 4,000 years from various sources deemed quite reliable in published documents.

The data show that the peak temperature around 1500 BC was 2 degrees Celsius warmer than today. Around 200 BC temperatures were 1.5 degrees Celsius warmer than today, and around AD 1100, temperatures were a full degree Celsius warmer than today. Those warmings could not have been induced by the burning of fossils fuels.

### Carbon Dioxide - Part 2

Certainly, carbon dioxide levels have been increasing due to the burning of fossil fuels over the last 150 years. And the average global temperature has risen by 1 degree Celsius or nearly 1.5 degrees Fahrenheit. But are the two linked in any way? Has the increase in atmospheric carbon dioxide caused the temperature increase?

First, carbon dioxide is a trace gas in our atmosphere. 78% of our atmosphere is nitrogen gas and 21% is oxygen gas. The remaining 1% is mostly argon gas and  $\rm CO_2$  comprising only 0.04%.

So, when we are told that carbon dioxide has risen from 280 parts per million around 1900 to 400 parts per million today, that means the level of  $CO_2$  has risen from about 3 parts per 10,000 to 4 parts per 10,000. That's not a lot of  $CO_2$ .

Second, carbon dioxide is plant food. Photosynthesis takes carbon dioxide from the air and water from the ground and uses the energy from sunlight to make the sugar glucose, the foundation of nearly all plant and animal life. The terrific book, Inconvenient Facts: The Science That Al Gore Doesn't Want You to Know{1}, tells us the increased  $\rm CO_2$  means more plant growth, more food production, and increased soil moisture since the plants don't need to keep their "pores" open as long and therefore lose less moisture through their leaves, leaving more moisture in the ground.

Third, if we use the age of the earth as estimated by the climate change community, we learn that our current level of carbon dioxide is as low as it has ever been. I don't know how they arrive at these estimates, but published data say that carbon dioxide levels have been as high as 20 times what they are now, and temperatures were certainly not 20 times higher.

To sum up what I have reviewed above: carbon dioxide is necessary for plant growth, carbon dioxide is a trace gas and simply doesn't have the power to alter climate by itself, and carbon dioxide has been many times higher in the past.

In the next section I address the far-fetched predictions of climate catastrophe coming our way and look at what the data says.

# Hurricanes, Tornadoes and Droughts, Oh My!

One of the tactics of the climate change community is to publish and threaten that increased global temperatures will

result in more severe and more frequent extreme weather events. Droughts will become more frequent and severe, local flooding will become more frequent and severe. Catastrophic storms like tornadoes and hurricanes will become more frequent and severe. Basically, any form of severe weather will only get worse.

One source said that "the impacts of climate change are expected to increase the frequency, intensity, and duration of droughts." $\{2\}$  So, let's look at a few. The EPA's own drought index shows far more severe droughts in the 1930s and 1950s than we have experienced in the last 60 years. Even globally, the frequency and severity of droughts has declined as global temperatures and  $CO_2$  increase.

Another form of severe weather that is supposed to increase are tornadoes. In 2011, Paul Epstein said in *The Atlantic* that "The recent trend of severe and lethal tornadoes is part of a global trend toward more storms." {3} Well, guess what? The actual trend of severe tornadoes at F3 or above is decreasing, and overall the number of tornadoes is decreasing. In fact, 2016 saw the fewest tornadoes in the United States ever recorded. So once again, the models and extremists are wrong.

Concerning hurricanes, you need to be careful. The U.S. National Climate Assessment of 2014 stated that the intensity, frequency, and duration of North Atlantic hurricanes . . . have all increased since the early 1980s." [4] That's true! But if you look at the long-term trend going back to 1920, instead of just the last few decades, the trend is downward. If you look at the frequency and severity of hurricanes for the whole earth, the trend is slightly downward. And the period between 2006 and 2017 saw no major hurricanes make landfall in the United States.

Whenever a severe weather event occurs in the United States, you can be sure the media will seize the opportunity to exclaim about how climate change is increasing storms overall.

## Rising Sea Levels, Antarctic Ice and Polar Bears

In this article I've been talking about the threats of increasing extreme weather as a result of human-caused global warming or climate change. As I've tried to show, all these threats have no basis in the scientific evidence.

You have probably heard that because of the excessive warming, glaciers will melt, and sea levels are expected to rise and inundate low lying island chains and coastal communities. Simply put, NO. Sea levels have been rising for a few thousand years and the rate of increase went up way before humans began burning fossil fuels. Sea levels are rising about one inch per decade and the rate of rise is not changing.

So, what about glaciers, the Arctic ice and Antarctica? Well, Arctic ice has been receding over the last 30 years, but that will not cause sea levels to rise since that is floating ice. Some glaciers indeed have been receding, but they began doing so before humans began burning all that fossil fuel. But even as some of these glaciers recede, they are revealing remnants of forestation, proving that they had receded previously—with no help from humans. Lastly, some Antarctic ice is receding but overall, Antarctica is gaining ice, not losing it. And polar bears are doing just fine, increasing in numbers, not declining.

In closing, let me offer a few words of advice. First, disregard almost everything you read and hear in the regular media outlets. Most of these journalists or reporters have little scientific training and they are simply repeating what they have heard from extremist environmental groups whom they trust.

Second, ignore what you hear from most government officials, elected or appointed. They have bought the narrative for their own political gain and don't likely understand the science involved.

Last, let me suggest you research two organizations for more balanced information. First, the <u>Cornwall Alliance</u>, a group of evangelical Christian who are concerned about the environment and accurate information. Second is a group known as CFACT and their website <u>Climate Depot</u>. They repeatedly attend various climate change conferences around the world and consistently stump climate change extremists.

Bottom line: I encourage you to be skeptical concerning just about anything you encounter when it comes to climate change.

#### Notes

- 1. Gregory Wrightstone, *Inconvenient Facts: The Science That Al Gore Doesn't Want You to Know* 2017, Silver Crown Productions, LLC.
- 2. Ibid, p. 65.
- 3. Ibid., p. 89.
- 4. Ibid., p. 93.

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## **Global Warming**

Fossil fuel emissions are unfairly being blamed for global warming. The Kyoto Protocol is based on questionable science, and will cause unnecessary economic hardship.

## What is Global Warming?

Over the last few months, dating back to the 2000 election, we have been bombarded with the news of global warming. Unfortunately, this issue has become highly polarized politically. Some scientists and politicians believe the warming has been fully documented as being caused by human interference and drastic measures are necessary to bring it under control, while others just as strenuously maintain that nothing has been proven and drastic measures will only ruin our economy for no reason. What are we to think?

First, let me say at the start of this article that I have been what some would call an environmentalist since high school. I cooperate fully with the recycling program offered by my city: collecting all newspaper, glass, aluminum cans, and certain plastics for pick-up every other week. I don't buy Styrofoam plates or cups since it is not reusable or biodegradable.

I have long been a nature enthusiast, previously as an avid bird-watcher and feeder. Zoos have always been an attraction for me, but even better are opportunities to see God's creatures in their natural habitat. A jog in the woods is more preferable to a run down the street, even with no traffic.

I drive a small fuel-efficient car and as soon as it is practicable for my family financially, I intend to purchase one of those new cars run by both battery and gasoline, which gets close to 60 miles to the gallon.

I think stewardship of God's creation is a good thing and I think we (meaning humans) have often sought our own needs to the unnecessary detriment of the rest of creation. So with this as a background, what do I think of global warming? I'm afraid that my position will not totally satisfy either of the extremes mentioned earlier. For I don't think global warming requires the drastic action being required by the United

Nations' Intergovernmental Panel on Climate Change (IPCC). But neither do I believe that the signs of global warming can be totally ignored, as some economists and political conservatives would have us think.

For instance, it does seem that there is credible evidence that both Arctic and Antarctic ice is receding, most glaciers worldwide appear to be in retreat, and sea levels are rising. The important question, however, is whether global warming is responsible for these events. And perhaps even more importantly, what can we realistically do about it even if rising global temperatures are even partly responsible for these disturbing trends?

In this article I will be examining the evidence for a human component to the increasing temperatures and whether the proposed remedies offered by the IPCC are the best means of effecting real change for the future.

## Global Warming and the Kyoto Protocol

The issue of global warming has become a lightning rod issue the world over. When President Bush recently indicated that he would hold back on setting carbon dioxide limits for U.S. power plants, environmentalist groups around the world immediately demonized him. A campaign was put in motion to flood the White House with e-mails condemning his action.

To help understand this issue let's investigate the basics of the greenhouse effect on our planet and see what the fuss is all about. The greenhouse effect simply refers to the ability of some gases in our atmosphere to absorb and hold heat better than others. This creates a warming blanket around the earth without which life would be much more difficult for all life forms on earth.

It's similar to the effect produced by actual greenhouses with walls and ceilings of glass. Glass allows certain wavelengths

of light and radiation in, but traps certain others from getting out. Leave your car in the full sun, even on a pleasant day, and you can later enter the car to blast furnace temperatures. That's a greenhouse effect.

Of great concern today is the fact that some greenhouse gases, such as carbon dioxide, are increasing in the atmosphere and the average temperature of the earth at ground level has increased by about a full degree Fahrenheit since 1900 (0.5 degrees Celsius). Many have become convinced that the increase in carbon dioxide and the increase in temperature are cause and effect respectively.

Further, many believe that the increased carbon dioxide is due to the burning of fossil fuels. Some global climate computer models predict that this is only the beginning of the rise of global temperatures and that by the end of the 21st century, average global temperatures could rise by as much as seven degrees Fahrenheit (3.5 degrees Celsius). As a result, the United Nations Framework Convention on Climate Change, based on the work of the Intergovernmental Panel on Climate Change, issued the Kyoto Protocol in December of 1997.

Simply put, the Kyoto protocol calls on all agreeing nations to reduce their fossil fuel emission by at least five percent below their estimated 1990 levels by around 2010. Most nations were actually assigned reductions of 7-8 percent, including the United States. Now that doesn't sound like much at first glance. However, it is widely recognized, that with the growth in the U.S. economy since 1990, this would amount to as much as a 30 percent actual reduction in fossil fuel use by 2010. To achieve such a drastic reduction would require major shifts in U.S. energy policy and the economy. We'd better make sure it's worth it.

Next we'll look at the science of global warming.

## Scientific Problems with Global Warming

Now I want to discuss some of the problems with the scientific evidence that purports to show that human produced carbon dioxide is responsible for global warming. {1} As I mentioned earlier, levels of carbon dioxide are increasing in the atmosphere and ground stations have reported a slight warming in this century. Many believe that the increase in carbon dioxide has caused the slight rise in temperature, and they fear this is only the modest beginning of more significant temperature increases in the 21st century. I think there are several reasons to strongly doubt this conclusion.

First, we need to consider the influence of long-term trends. The last ice age ended about 11,000 years ago by most estimates, and the planet has been warming ever since. Sea levels have been rising at the rate of 7-8 inches every 100 years. Therefore, the fact that sea levels are rising is not necessarily due to humanly caused global warming. There was a significant warming trend from around 900 A.D. to 1300 A.D. Greenland was actually green on its coasts at one time. This was followed by what is referred to as the "Little Ice Age" from about 1450 to 1850. Both of these trends occurred without human influence and the current warming trend could just be stabilization from this last Little Ice Age.

I have mentioned that the warming trend has been measured from ground stations. This distinction has been added because there is conflicting data from weather balloon and satellite data. The most significant warming has been measured in the last two decades. However the temperature of the atmosphere has remained constant over the last twenty years.

How can the ground temperatures increase and the atmospheric temperatures stay the same? To be honest, nobody really knows for sure, but there is evidence that the ground based temperatures are in error. This could be due to what is called the heat island effect. It has been noticed that urban

measured temperatures have increased faster than rural temperatures. The concrete, asphalt, factories, motor vehicles, and population density of large cities may be biasing these readings and giving a false warming trend.

If the warming trend is real, there may be another significant factor involved that has nothing to do with human interference: the sun. A measurement of solar activity in terms of the sunspot cycle length shows a strong correlation with global temperatures over the last 100 years: including the rise from 1920-1940, the dip from 1940 to 1980, and the rise over the last twenty years.

All these data seem to indicate that global warming, if it exists, is not likely to be due to human action.

## The Economic Effects of the Kyoto Protocol

Knowing that the science is highly questionable raises severe concerns about the Kyoto Protocol, which calls for at least a 30 percent reduction in U.S. fossil fuel use by 2010. Not only is this drastic reduction unnecessary to combat global warming, but also its effects on the U.S. economy could be catastrophic.

First, let me point out that some warming is not such a bad thing. It is widely recognized that increased carbon dioxide is good for plants. They grow faster and require less water. A slightly longer growing season is not a negative either. It is simply not factual to suggest that global warming is responsible for increases in severe weather, including hurricanes, tornados, floods, and droughts. Storms, in particular, have not shown any real increase in frequency or intensity.

John Christy, professor of atmospheric science at the University of Alabama and one of the lead authors of the IPCC

report, said, "Hurricanes are not increasing. Tornados are not increasing. Storms and droughts do not show any pattern of increasing or decreasing . . . . Variations of climate have always occurred, even when humans could not have had any impact." {2}

Beyond these observations is the realization that the implementation of the Kyoto Protocol would have severe economic consequences. Our own U.S. Energy Information Administration (EIA) says Kyoto could drain more than \$340 billion a year from the U.S. economy (\$1,500 per person), double electricity prices, and cause the price per gallon to soar 65 cents for gasoline, 88 cents for diesel, and 90 cents for home heating oil. What is most significant about these rises in energy prices is that they would affect low-income families most severely. Upper and middle-income families can better shift resources to meet rising energy costs than the poor or the elderly on fixed incomes. Yet no one has talked about this.

The EIA also calculates that the Kyoto treaty could cost 3.2 million American jobs. An exhaustive study commissioned by a coalition of minority business groups concluded that 1.4 million of those lost jobs would be in our Black and Hispanic communities. And average annual family incomes in those communities would decline by between \$2,000 and \$3,000 under Kyoto.{3}

What is most disconcerting is that all this economic impact would be essentially for nothing, because not only is the science of human caused global warming suspect, but even if the Kyoto Protocol is followed, it would result in less than one-half of one degree reduction in global temperature by 2050. It hardly seems worth it.

### So What Do We Do?

After exploring the question of global warming, we've found

the science behind it to be questionable at best and the economic impact unnecessarily severe, particularly for minority families and businesses. This may raise a question in some people's minds as to why this is being pushed so uncritically by other world governments and by the media.

Well, the first clue comes from a quick perusal down the list of nations from the Kyoto Protocol itself. Some countries like the Russian Federation are simply asked to hold their emissions at 1990 levels with no reduction. Countries from Latin America, Asia, Africa, and Polynesia, including China and India aren't even on the list (except Japan)! The reason is that these countries are still developing their economies and will need unrestricted energy use. However, as these populous nations grow economically, they may well exceed the emissions output of western nations altogether.

Implicitly, this affirms the necessity of fossil fuel energy for healthy economies. This treaty may be little more than a tax on western nations, not a policy for climate change. The late Aaron Wildavsky, professor of political science at UC Berkeley, wrote, "Warming (and warming alone), through its primary antidote of withdrawing carbon from production and consumption, is capable of realizing the environmentalist's dream of an egalitarian society based on the rejection of economic growth in favor of smaller population's eating lower on the food chain, consuming a lot less, and sharing a much lower level of resources much more equally."{4}

Now I don't think all those things are bad in and of themselves. But I don't like the idea of being forced into it in the name of avoiding climate change. A recent *Time* cover story, apart from a wholly typical and irresponsible scare article promoting the myth of human induced global warming, actually provided some common sense activities for responsible environmental activities that save resources and money. {5}

Among them were: running your dishwasher only when it's full,

replacing air-conditioning and furnace air filters regularly, and adjusting your thermostat to a little warmer in summer and a little cooler in winter. You can also set your water heater to no higher than 120 degrees (F); it saves money and is safer. Try low-flow showerheads to use less hot water and wash clothes in warm or cold water. Most detergents today clean just as well in cooler temperatures. Use energy efficient light bulbs. Improve your home insulation. And seal up all the cracks.

Since all of these save electricity, they save not only resources, but also money for you. It just makes sense.

Increased energy prices, which should occur as demand for oil and gas increases and supply remains steady temporarily but begins to drop in 20 to 40 years, will spur development for more renewal energy sources such as solar, wind, and geothermal power. Also, research is progressing in stimulating the ocean to be more biologically productive through seeding with iron to act as a sink for carbon dioxide, if levels are shown to be affecting the general climate.

But where is the voice of the church? For too long we have been silent on environmental issues. As Christians we should lead the way in care for the environment, since we claim to be rightly related to its Creator in the first place.

#### **Notes**

1. S. Fred Singer, 1997, 1999, "The Scientific Case Against the Global Climate Treaty," <a href="http://www.sepp.org/GWbooklet/withfigures.html">http://www.sepp.org/GWbooklet/withfigures.html</a>. All of the scientific evidences in this section can be found in this fair and reasoned report. Singer is a retired climatologist from the University of

Virginia and has formed The Science and Environmental Policy Project (SEPP) to help educate the public on global warming. This website is a great resource for up-to-date information on the global warming controversy. The report above is available with and without figures, but I reference and recommend the version with the figures copied with permission from peer-reviewed science journals for the full effect.

- 2. Quoted by James K. Glassman, in "Administration in the Balance," March 8, 2001, Wall Street Journal.
- 3. Paul Driessen, 2000, "Navigating the Treacherous 'Seven Cees' of Climate Care," The Issue Archive of CFACT (Committee for a Constructive Tomorrow) at <a href="http://www.cfact.org/Issues.htm">http://www.cfact.org/Issues.htm</a>.
- 4. Quoted by James K. Glassman, in "Administration in the Balance," March 8, 2001, Wall Street Journal.
- 5. "What Can You Do?" Time, April 9, 2001, p. 39.

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