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 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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The Complex Realities Behind Global Warming

Dr. Ray Bohlin says that global warming is over-hyped and not the danger that environmental alarmists would have us believe. We need to look carefully at what's really going on.

Is the Earth Warming?

Global warming is a very controversial and complicated topic. A few years ago I <u>addressed my growing concerns</u> about how certain scientists and the media were only telling part of the story. {1} I have hesitated to go further with a critique with what has become a global warming scare campaign because I wanted to be sure before getting overly critical.

Unfortunately, because of controversies over origins, embryonic stem cell research, the lack of solid information about sexually transmitted diseases for young people, and other issues, the Christian community has been given a tag of being anti-science. We are somehow afraid of science because it has the potential of arguing against the idea of a truly supernatural God.

As one trained in the disciplines of science, this reputation grieves me. I love science and nature. I always have. I studied ecology as an undergraduate and early in my graduate studies. I was a member of SECS, Students for Environmental Concerns, at the University of Illinois. I recycle my newspapers, plastic, aluminum, and tin cans and glass. I have always driven a fuel efficient vehicle.

As I grew as a believer I read Francis Schaeffer's *Pollution* and the Death of Man: The Christian View of Ecology. In those pages, I saw that only a Christian environmental ethic could supply a real and workable framework for environmental action while still respecting man's unique position as being made in the image of God and man's place as God's steward of Creation. One time I even represented evangelical Christians on a panel at a meeting of environmental journalists. They were genuinely cordial and very curious about how a conservative evangelical could even have concerns about the environment.

But I could still find many points of agreement with the more secular environmental movement. Therefore, I have hesitated to criticize what has become a primary issue for the environmental movement until I was more up to date on the facts. My basic point about global warming is that there is much more controversy about what the data is telling us than what is usually communicated to the public.

The one thing just about everybody agrees with is that the earth has warmed about one degree Fahrenheit or a half degree Celsius since 1900. The controversy revolves around what has caused that increase, what its effects will be, and whether the steep increase in global temperature, especially since the 1970s, will continue to escalate out of control.

But is it realistic to think such escalation will continue? Does the data really predict such an extreme? Can computer models be that accurate?

If the Earth Is Warming, Are Humans Responsible?

As I noted above, just about everyone is convinced the earth has warmed by about one degree Fahrenheit since the year 1900. That doesn't sound particularly ominous. But some computer models suggest that global temperatures could increase by five to ten degrees Celsius or nine to eighteen degrees Fahrenheit by the year 2100!

That sounds like a very unattractive possibility. But is it real? The engine that really drives the global warming freight train is not just the fact that the earth has warmed over the last century but the suspected cause. Those who support a radical view of global warming, such as former Vice President Al Gore, believe that the warming is due to increased levels of carbon dioxide in the atmosphere. The increase in carbon dioxide is caused by humans burning too many fossil fuels such as oil, gas, and coal.

So how much carbon dioxide in the atmosphere is too much? In 1958, carbon dioxide levels in the atmosphere were 315 parts per million (ppm). In 2008, fifty years later, carbon dioxide had risen to 385 ppm, about a twenty percent increase. Carbon dioxide is referred to as a greenhouse gas. That means that the carbon dioxide in the atmosphere absorbs energy from the sun and radiates it back out as heat. Therefore, the more carbon dioxide in the atmosphere, the warmer it becomes.

That would seem to say that increased carbon dioxide means a warmer atmosphere. But how much heat carbon dioxide accounts for is hotly debated among scientists. Some say it's the major cause of global warming; others say it probably has little effect. There has been a little reporting that the earth cooled slightly after 1998, and that the earth's temperature has stabilized for the last ten years. In fact, from January 2007 to May 2008, the earth cooled by a full degree Fahrenheit. {2} Yet, CO₂ levels have continued to rise! Something seems backwards.

Australian climate scientist David Evans used to solidly believe that there was a large role for carbon dioxide in the global warming scenario. But Evans then looked at the data independently. He summed up his research by saying, "There is no evidence to support the idea that carbon emissions cause significant global warming. None." {3} The data has completely changed his mind.

Besides, the earth has warmed and cooled significantly in the last two thousand years without any human interference. {4} The Medieval Warming Period from AD 900 to AD 1300 was warmer than today (which, incidentally, was a period of great economic expansion, demonstrating that the alarmist claims that global warming will ruin the economy are groundless).

If the Earth Is Warming, What Will Be the Consequences?

As I have said earlier, the earth has warmed slightly over the last century. Some have even pointed to 1998 as the warmest year on record. Although a re-analysis of the data questions that conclusion, the 1990s was still a very warm decade compared to any other decade in the century.

But what if the temperatures continue to rise? Perhaps the most common projection is of wildly rising sea levels. The 2001 IPCC (<u>Intergovernmental Panel on Climate Change</u>) report suggested sea levels could rise as much as two to three feet by the year 2100. Many of our coastal cities and wetlands would be inundated.

But what does the data show? First, sea levels have been rising steadily since the last ice age over eleven thousand years ago. The melting of the vast continental glaciers caused significant sea level increases. Second, over the last hundred and fifty years, sea levels have increased by about six inches every one hundred years. Third, many scientists see no reason that this rate will change significantly this century or the next. Reports of Indian Ocean or Pacific Ocean islands being inundated by rising sea levels just don't stand up to investigation.

Venice has been succumbing to rising sea levels for over a hundred years. But the problem is not just rising sea levels. {5} The land mass that the city of Venice rests on has also been sinking for decades due the weight of the city and the unstable ground underneath.

Many glaciers are retreating, and that could cause sea levels to rise. But some glaciers are growing and advancing. While one portion of Antarctica has warmed, most of the continent is cooling and the ice mass is growing. The realities are more complex that we are being told. Another major projection is that storms will be increasing in frequency and intensity. This has usually been applied to hurricanes, especially after the destructive storms, Katrina and Rita, in 2005. But again something curious went underreported. Hurricane forecasters were predicting another harsh hurricane season in 2006 and 2007.

But neither of these years panned out that way. Both were relatively quiet with fewer and less intense storms. The peer reviewed journal *Natural Hazards* focused an entire issue on this question in 2003, and experts from across the climate fields found no reason to expect storms of any variety to increase in intensity or frequency. {6}

There are also positive benefits of warming and increased carbon dioxide. Carbon dioxide and increasing temperatures are good for plants. Vegetation has increased by six percent globally from 1982 to 1999. We forget that carbon dioxide is not a pollutant. It is a necessary fertilizer for plants.

If the Earth Is Warming, What Should We Do About It?

Because of all this, I conclude that, at the very least, the evidence for anything resembling a catastrophic global warming due the increase of the greenhouse gas carbon dioxide from burning fossil fuels is remote at best. Certainly the earth is warming, but at a very slow rate. The warming is likely due to a well observed cycle of warming and cooling that occurs about every fifteen hundred years. {7} This cyclical trend is probably due to cycles in the sun's intensity over this same period of time.

But those who are pushing a more alarming scenario of catastrophic global warming demand drastic action. Since many have concluded that the major component to the warming has been human produced carbon dioxide from the burning of fossil fuels, they unsurprisingly want to curtail the use of fossil fuel. The now infamous Kyoto Protocol has called on the major developed countries to curtail their carbon emissions due to fossil fuels to seven percent below 1990 levels by the year 2010, only two years away. But increasing levels of technology have increased our demand for electricity. This means we would need to reduce our emissions by twenty-three percent of today's levels. {8} Needless to say, cutting our fossil fuel use by nearly one quarter would be catastrophic to our economy.

Renewable energy sources like wind and solar should be a part of our energy future, but they will always be intermittent. Storing and transporting these energy sources will continue to be expensive. Current costs indicate these power sources are four to ten times as expensive as fossil fuels.

Economic forecasting groups estimate that Kyoto will cost the U.S. economy between 200 and 300 billion dollars per year. Over two million jobs will disappear and the average household will lose \$2,700 each year. {9} These enormous economic costs will be hardly noticed in households making six figure salaries. The largest impact of increasing energy costs will be largely felt by low and middle income families. The combined costs of electricity and gasoline will drive even more below the poverty line and force small businesses into bankruptcy.

The worst part of this economic news is that the actual gain in lowered global temperatures will be hardly noticeable. The U.N. itself admits that even full compliance with Kyoto will only result in a 0.2 degree Centigrade slowing of global warming by 2047.

There are numerous other scientific, economic, and political problems with alarming scenarios of human caused global warming. Check the additional resources at the end of this article to get better informed about this crucial issue.

What Is a Christian Environmental Ethic?

To summarize: First, the likelihood that the increasing levels of carbon dioxide in our atmosphere through the burning of fossil fuels is responsible for this warming is very small and growing smaller. Second, the evidence is increasing that this period of warming is not unusual in the earth's history. Third, the warming trend has stalled over the last decade as carbon dioxide levels have continued to increase. Fourth, even if the burning of fossil fuels has contributed significantly to this one-hundred-year warming trend, the proposed remedy of cutting back drastically on our use of fossil fuels would cost hundreds of billions of dollars every year and dramatically affect the worldwide economy and trap even more people in poverty for little or no reduction in the rate of warming.

And last but not least, over 30,000 scientists, 9,000 of them with Ph.D.s, have signed a statement rejecting the claim that "human release of greenhouse gases is damaging our climate." {10} There is no consensus in the scientific community about human-caused global warming.

I have a growing suspicion that global warming alarmism is simply a tool to bring about a redistribution of wealth from rich to poor countries, gain higher levels of government regulation, energize and empower the extreme environmental movement, and to impose an unnecessary lifestyle designed to drastically reduce the impact of humanity on the earth.

What this perspective reveals is an environmental policy based on a naturalistic worldview. The earth is viewed as a place where all manner of species have evolved through natural process and no one species has preference over another. The earth "belongs" to all species. Humans, therefore, are just another species, whose negative impact on the earth far outweighs its presence or numbers. Correcting this imbalance vetoes any concerns about human welfare and prosperity.

But from a Christian worldview, we learn that the earth belongs to God as Creator, and by His decree we have been given stewardship of this creation. But as human beings are made in the image and likeness of God, human welfare arises as an equally valid priority. We can't callously disregard the poor and human welfare in general to satisfy a politically motivated call for environmental action based on skewed science. Check the additional resources below to help you find your way through the minefield of conflicting evidence, rhetoric, and opinion.

Notes

- 1. Dr. Ray Bohlin, "Global Warming," probe.org/globalwarming/.
- 2. <u>wattsupwiththat.wordpress.com/2008/06/03/uah-global-temperature-dives-in-may/</u> accessed September 12, 2008.
- 3. David Evans, www.theaustralian.news.com.aU/storv/0.25197.24036736-7583.00.h tml accessed September 3, 2008.
- 4. On top of that, ice core data from various places around the world now confirm that carbon dioxide levels have risen as the temperature rises well before humans could have had any worldwide impact. More precise measurements indicate that the rise in carbon dioxide trails the rise in temperatures by several hundred years. Climate specialists speculate that as the atmosphere and oceans increase in temperature, the oceans release more of their dissolved carbon dioxide into the atmosphere. So in the past, rising temperatures has caused the rise in carbon dioxide, not the other way around.
- 5. Ibid, p. 161-171.
- 6. Natural Hazards 29, No. 2 (June 2003).
- 7. S. Fred Singer and Dennis T. Avery, Unstoppable Global Warming (Rowman & Littlefield Publishers, 2008).
- 8. Ibid., 60.
- 9. Acton Institute, Environmental Stewardship in the Judeo-Christian Tradition (Grand Rapids, Mich./Acton Institute,

2007), 92-93.

10. Melinda Zosh, "31,000 Signatures Prove 'No Consensus' About Global Warming," Accuracy in Media,

www.aim.org/briefing/31000-signatures-prove-no-consensus-about
-global-warming/. May 22, 2008.

Additional Resources

www.cornwallalliance.org/articles/read/an-open-letter-to-the-s
igners-of-climate-change-an-evangelical-call-to-action-andothers-concerned-about-global-warming/

www.cornwallalliance.org/docs/a-call-to-truth-prudence-and-pro
tection-of-the-poor.pdf

www.we-get-it.org

Singer, S. Fred, and Dennis T. Avery. *Unstoppable Global Warming Every 1500 Years*. Rowan and Littlefield Publishers, New York, 2007, (especially page 260).

Acton Institute, Environmental Stewardship in the Judeo-Christian Tradition, Grand Rapids, Mich./Acton Institute, 2007, (especially page 119).

Driessen, Paul. *Eco-Imperialism: Green Power, Black Death*. Bellevue, Wash./ Free Enterprise Press, 2003-2004, (especially page 182)

Schaeffer, Francis A. *Pollution and the Death of Man: The Christian View of Ecology*. Wheaton, Ill./ Tyndale House Publishers, 1970, (especially page 125)

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