Inconvenient Truth 2.0

Kerby Anderson revisits Al Gore's claims of environmental alarmism in the 20-year-old film An Inconvenient Truth.

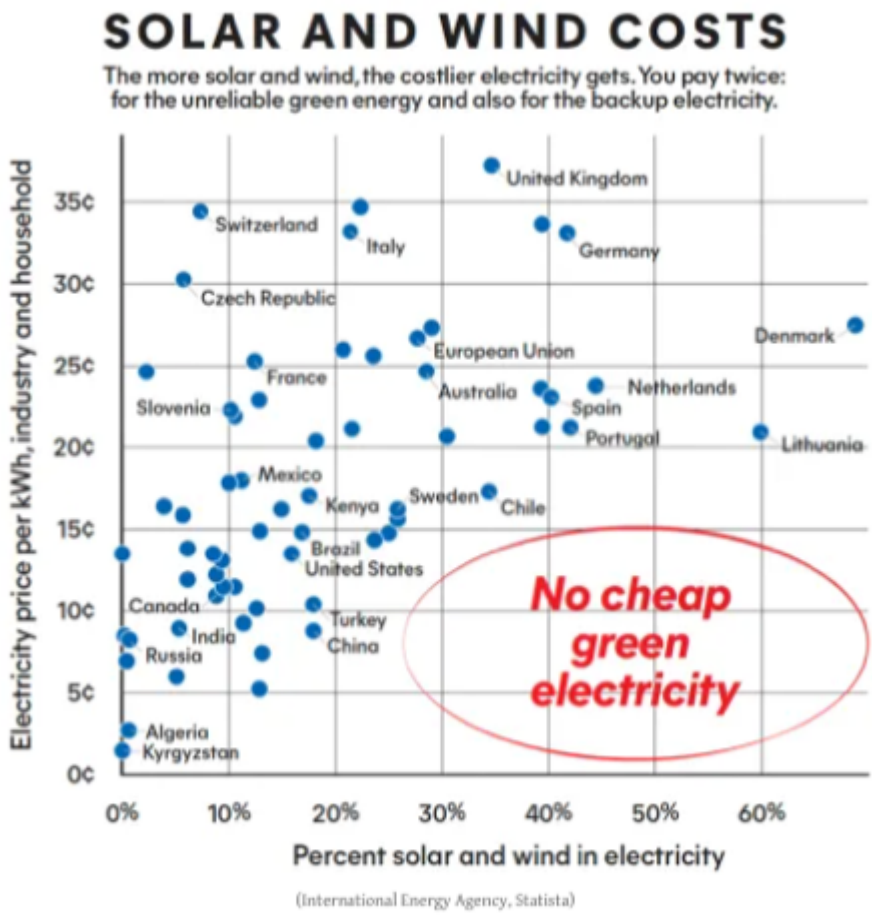
Next month is the 20th anniversary of Al Gore's film, *An Inconvenient Truth,* which hit theaters in May 2006. Bjorn Lomborg reminds us that "the film, with its dramatic visuals and dire warnings, transformed the issue of climate change from a niche ecological concern into a front-page crisis."

The film's predictions about escalating catastrophes did not materialize, and its policy prescriptions failed. He also reminds us that approximately $16 trillion has been spent in pursuit of its vision, and yet it has delivered few benefits.

The film painted a bleak picture of the future with climate change driving ever-worsening disasters. For example, the film warned of polar bears vanishing, using computer-generated images of them drowning because of melting ice. But polar bear populations have doubled. The film predicted a significant increase in hurricanes. Global data from satellites have shown a slight decline.

The proposed policies cost trillions and had little impact. We were told that wind and solar were the cheap solutions to climate change. All we had to do was swiftly implement these technologies to save the planet.

Instead, nations have found that as they ramp up their share of such renewables, electricity prices soar. As his chart shows, there is no cheap green electricity.



Perhaps the worse fallout from the film has been climate hysteria that encourages activists to glue themselves to roads and to vandalize paintings. Bjorn Lomborg believes climate change is a challenge, but not a catastrophe. Twenty years later, the biggest catastrophe is the film.

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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, 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? 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 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 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. Just don’t believe it.

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 Cornwall Alliance, a group of evangelical Christian who are concerned about the environment and accurate information. Second is a group known as CFACT and their website Climate Depot. 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.

Probe Live Presents "Climate Change and the Green New Deal"

Probe Live Presents "Climate Change

and the Green New Deal”

Dr. Ray Bohlin is Vice-President of Vision Outreach for Probe Ministries.

A lifelong conservationist with a deep commitment to a biblical perspective on environmentalism, Dr. Bohlin has been closely following the Climate Change issue for over 20 years. In this public lecture he presented lots of charts and graphs showing there’s no reason to be worried about a climate catastrophe.

PDF of Dr. Bohlin’s Slides:
Climate Change – Green New Deal PDF

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 addressed my growing concerns 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, CO_2 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 (Intergovernmental Panel on Climate Change) 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/global-warming/.
2. wattsupwiththat.wordpress.com/2008/06/03/uah-global-temperature-dives-in-may/ accessed September 12, 2008.
3. David Evans, www.theaustralian.news.com.aU/storv/Q.25197.24036736-7583.00.html 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-signers-of-climate-change-an-evangelical-call-to-action-and-others-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)

Hope in the Midst of the Growing Malaria Pandemic

The Growing Scourge of Malaria

We don't know much about malaria in the United States anymore. The disease was once prevalent in the Southern States as far north as Washington D.C. George Washington suffered from malaria as did Abraham Lincoln. A million casualties in the Civil War are attributed to malaria. But malaria was eradicated in the U.S. and much of Europe by 1950 with the use

of pesticides, eliminating the sole transmitting agent of the malarial parasite, Anopheles mosquitoes.{1}

Malaria not only continues elsewhere but is a growing threat in the tropics around the world and especially in Sub-Saharan Africa. Half the world's population is at risk for malaria with some estimates as high as 500 million cases every year and over 2 million deaths. Most of those deaths are in Sub-Saharan Africa, and over half of them are of children under five years of age. In some parts of Zambia there are over thirteen hundred cases of malaria for every thousand children under five. That means some children are infected more than once per year.

The economic effects are just as severe. Malaria drains the Indian economy of nearly $800 million each year due to lost wages from death, absences, fatigue and money spent on insecticides, medicines, and research. Uganda spends over $350 million annually on malaria control, and forty percent of their health care dollars are spent on treating malaria. Still eighty thousand die every year.

The disease begins with a painless bite of the female Anopheles mosquito that needs blood to feed her eggs every three days. To prevent coagulation of her victim's blood she injects a little saliva which also may contain only a couple dozen one-celled organisms of the genus *Plasmodium*, the human malarial parasite. These make their way to liver cells where they multiply by the tens of thousands. After several days these liver cells rupture, releasing the parasite into the blood stream. The new parasites infect red blood cells and multiply again by the tens of thousands. Still the victim is unaware anything is wrong.

Once the parasites have consumed the red blood cells from the inside out, they rupture the cells and tens of millions of parasites are loose inside the blood. The first immune response begins, and muscle and joint aches are the first sign

something is wrong. But the parasites infect new red blood cells within thirty seconds of release and hide from the body's defenses for two more days. When the next wave of parasites release, the immune system can be overwhelmed. Fever, cold sweats, and chills ensue and the fight is on. At this stage if an uninfected mosquito bites the sufferer, she will ingest a new form of the parasite and the cycle begins anew.

We need to get this scourge under control.

New Hope with DDT

As noted previously, malaria was prevalent in the U.S. until the late 1940s. We rid ourselves of this scourge through the use of the "miracle" pesticide DDT (dichloro-diphenyl-trichloroethane). Malaria was eliminated in Europe and North America by eliminating the species of mosquito that carried the disease-causing parasite.

DDT was used during WWII essentially as a secret weapon against malaria in the Pacific war. Not only were American bases sprayed with DDT to rid them of malaria carrying mosquitoes, but freed prisoners of war were dusted with DDT powder to rid them of insect parasites. DDT was used to great effect and was deemed entirely safe to humans.

After WWII, Europe and America began applying DDT to their malarial and agricultural problems in mammoth proportions. Malaria was eliminated in Europe and the U.S. in a few years. Greece reportedly eradicated malaria within one year. Sri Lanka used DDT from 1946 to 1964 and malaria cases were reduced from over three million to twenty-nine.{2}

Recent studies have shown repeatedly that DDT causes no harmful effects to human health, and when used as currently prescribed there is little possibility of harm to the environment.{3} In South Africa, Sri Lanka, Mozambique and

other nations, DDT has been extremely effective in reducing the rates of malaria, as much as an eighty percent reduction in one year.{4}

DDT is not sprayed out in the natural environment but on the walls of homes and huts. This use repels Anopheles mosquitoes, agitates those that do enter the home so they don't bite, and kills only those that actually land on the wall. Since most mosquitoes are not killed, just repelled, little opportunity exists for resistance to DDT to build up. Even mosquitoes that are known to be resistant to DDT are still repelled by it.

South African Richard Tren, president of Africa Fighting Malaria, says that "In the 60 years since DDT was first introduced, not a single scientific paper has been able to replicate even one case of actual human harm from its use."{5}

The World Health Organization in 1979 deemed DDT the safest pesticide available for mosquito control, and estimates from reputable scientists indicate DDT has been responsible for saving up to 500 hundred million lives.{6}

DDT is effective, cheap, long lasting, and safe. By itself, DDT is not a magic bullet, but it's pretty close. Certainly more aggressive use of bed nets and newer drug treatments for those already infected still need to be used, but without DDT, these are only putting band aids on inches-deep open wounds. But some third world countries still do not know about DDT or are afraid to use it.

The Objections of the Environmentalists

For some, the reemergence of the pesticide DDT in the escalating fight against malaria raises concerns as it did for me since we are aware of the troubles allegedly caused by DDT for birds, particularly hawks and eagles in the '60s and '70s.

When the U.S. eradicated malaria, DDT was almost too effective

and too cheap. Agricultural use was stepped up, and since DDT is a long-lasting chemical, it built up in the environment and in the food chain. Fish particularly began harboring large amounts of DDT in their tissues and Bald Eagles, which feed on fish, began a build-up of the chemical in their tissues as well. Eventually, Rachel Carson's 1962 book, *Silent Spring*, blamed the declining numbers of Bald Eagles on the use of DDT. By 1972, the U.S. Environmental Protection Agency had banned the use of DDT in the U.S. despite mountains of evidence that this ban was unwarranted.

Bald Eagle numbers were plummeting before the use of DDT, and were recovering before the chemical was banned.{7} Specific tests done with numerous birds found no correlation between thinning egg shells and DDT. But the damage was done. The U.S. and European nations banned DDT and expected other countries to do the same. Both governments and non-governmental organizations (NGOs) began rejecting goods from other countries that used DDT.

When Sri Lanka and South Africa stopped use of DDT, malaria rates soared.

The indoor residual spraying method offers no risk to humans or to the environment, yet environmental groups still resist its use. "If we don't use DDT, the results will be measured in loss of life," says David Nabarro, director of Roll Back Malaria. "The cost of the alternatives tend to run six times that of DDT."{8}

But this truth seems to be lost on many activists and aid agencies. The human toll of malaria worldwide is far more important than imagined environmental risks and discredited scare campaigns. International aid agencies need to free up important aid dollars to secure DDT for countries whose people can't afford the latest malaria medicines and whose government's health budgets are stretched to the breaking point simply taking care of already sick patients.

Obviously there is something more going on than just unrealistic objections to a particular chemical. DDT is environmentally safe, without risk to human health, extremely effective and incredibly cheap.{9} The environmentalist worldview comes clearly into focus, even though their policies mean death and disease throughout over one hundred countries where malaria is endemic.

"Sustainable Development" Keeps Billions in Poverty, Disease and Malnutrition

DDT was unfairly criticized and banned in 1972 in the U.S. and eventually around the world despite clear evidence to the contrary. Places where malaria had been nearly eradicated, such as Sri Lanka, saw an immediate surge in malaria after its use was discontinued. But even now as the scientific credibility of DDT has been restored, many continue to fight its use.

Environmentalists and officials at the World Health Organization seek to reverse recent decisions to rehabilitate DDT and begin its effective use in malaria stricken countries. But why? If DDT is so effective, safe, and inexpensive, why would some continue to fight its use? The answer is bigger than just misinformation or stubborn adherence to worn out doctrines.

In his book *Eco-Imperialism: Green Power, Black Death*, Paul Driessen exposes an intricate web of conspiracy to keep third world countries energy deficient, disease plagued, chronically poor, and malnourished, all in the name of "sustainable development." The bottom line is that sustainable development means that, if there is any supposed or imagined risk to the environment, then economic development must be curtailed to insure that whatever development occurs is sustainable by the environment with no risk at all.

Therefore, drugs like DDT for malaria control, fossil fuel-burning power plants, and even dams providing irrigation, safe drinking water, and cheap electrical power are resisted by powerful and well-funded environmentalist groups.

The Narmada dam project was killed in India by environmentalist groups concerned by a particular fish species that might be threatened. They persuaded international lending agencies to withdraw their support. Local residents were incensed. The project would have provided low cost electricity, sewage treatment plants, irrigation and clean water for 35 million people. People displaced were to be given new homes and farmland. But when a tiger and wildlife preserve was formed, displaced peoples were given no place to go and threatened with extreme measures if they returned.{10}

But why would seemingly well intentioned people appear to be so harsh and cruel to people simply wanting a better life? At the heart of this problem is a foundational worldview issue.

The Difference a Worldview Makes

It's alarming to see how frequently environmental groups will deliberately distort the truth and outright lie to achieve their ends. They have been caught many times, but are never held accountable.

In 1995, Shell Oil was announcing plans to sink one of its offshore oil rigs in the Atlantic with a permit from the UK Environment Ministry. Greenpeace, an international environmentalist group, launched a $2 million public relations campaign that accused Shell of planning to dump oil, toxic wastes, and radioactive material into the ocean. Shell eventually backed off and spent a fortune to dismantle the platform onshore.

A year later, Greenpeace actually published a written apology, effectively admitting the entire campaign had been a fraud.

There were no oil or toxic wastes, and the admission was buried with small headlines in the business page or obituaries.{11}

The Alar apple scare of 1989 has been exposed as a gross misuse of science that ended up bringing in millions of dollars to the National Resource Defense Council that orchestrated the campaign. Never mind that grocers, apple growers, and UniRoyal lost millions of dollars as well as the use of Alar, an important cost-saving and harmless chemical.{12}

But why such fraud and misinformation in the name of a safe environment? My analysis indicates a clear difference in worldview. Many of the leaders in the environmental movement are operating under the banner of a naturalistic worldview. In that context, nature as a whole takes precedence over people. Anything that they perceive as even potentially causing harm should be avoided. Nature must be preserved as it is.

Invariably, the one species asked to make sacrifices is always human beings. This is clearly reflected in third world countries struggling to overcome the crippling effects of poverty and disease. Rather than develop cheap electricity through fossil fuel power plants, millions are forced to burn dung and local wood products, causing large increases in toxic fumes and other indoor pollutants.

Nearly a billion people worldwide suffer from increased incidence of asthma, pneumonia, tuberculosis, lung cancer, and other respiratory diseases linked to indoor pollution caused by burning raw biomass fuels to heat their homes and cook their food.{13}

As Christians, we recognize that people are made in the image and likeness of God. While we are always responsible for carrying out our responsibility to rule and have dominion over God’s creation, a larger, primary concern is to look after

human needs and relieve human suffering. Let's start allowing people the right to make their own decisions concerning electricity and malaria with our advice and not unreasonable pressure.

Notes

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Christian Environmentalism – A Biblical Worldview Perspective on You and the Earth

Dr. Bohlin applies a biblical point of view in determining a concerned Christian relationship to environmentalism. As Christians, we know we have been made stewards of this earth, having a responsibility to care for it. Understanding our relationship to God and to the rest of creation gives us the right perspective to apply to this task.

This article is also available in Spanish.

Is There an Environmental Problem?

The news media are full of stories concerning environmental disasters of one kind or another, from global warming to endangered species to destruction of the rain forests to nuclear accidents. Some are real and some are imaginary, but it's not hard to notice that the environmental issue receives very little attention in Christian circles. There are so many other significant issues that occupy our attention that we seem to think of the environment as somebody else's issue. Many Christians are openly skeptical of the reality of any environmental crisis. It's viewed as a liberal issue, or New Age propaganda, or just plain unimportant since this earth will be destroyed after the millennium. What we fail to realize is that Christians have a sacred responsibility to the earth and the creatures within it. The earth is being affected by humans in an unprecedented manner, and we do not know what the short or long term effects will be.

Calvin DeWitt, in his book *The Environment and the Christian*,{1} lists seven degradations of the earth. First, land is being converted from wilderness to agricultural use and from agricultural use to urban areas at an ever-increasing rate. Some of these lands cannot be reclaimed at all, at least not in the near future.

Second, as many as three species a day become extinct. Even if this figure is exaggerated, we still need to realize that once a species has disappeared, it is gone. Neither the species nor the role it occupied in the ecosystem can be retrieved.

Third, land continues to be degraded by the use of pesticides, herbicides, and fertilizers. While many farmers are rebelling against this trend and growing their produce organically or without chemicals, the most profitable and largest growers still use an abundance of chemicals.

Fourth, the treatment of hazardous chemicals and wastes continues as an unsolved problem. Storing of medium term nuclear wastes is still largely an unsolved problem.

Fifth, pollution is rapidly becoming a global problem. Human garbage turns up on the shores of uninhabited South Pacific islands, far from the shipping lanes.

Sixth, our atmosphere appears to be changing. Is it warming due to the increase of gases like carbon dioxide from the burning of fossil fuels? Is the ozone layer shrinking due to the use of chemicals contained in refrigerators, air conditioners, spray cans, and fire extinguishers? While I remain skeptical of the global threat that many see, pollution continues to be a local and regional concern prompting ever more stringent emission controls for our automobiles.

Seventh, we are losing the experiences of cultures that have lived in harmony with the creation for hundreds or even thousands of years. Cultures such as the Mennonites and Amish, as well as those of the rain forests, are crowded out by the

expansion of civilization.

Never before have human beings wielded so much power over God's creation. How should we as Christians think about these problems?

The Environmental Ethics of Naturalism and Pantheism

Some people have blamed Western culture's Judeo-Christian heritage for the environmental crisis. These critics point squarely at Genesis 1:26-28, where God commands His new creation, man, to have dominion over the earth and to rule and subdue it.{2} This mandate is seen as a clear license to exploit the earth for man's own purposes. With this kind of philosophy, they ask, how can the earth ever be saved? While I will deal with the inaccuracy of this interpretation a little later, you can see why many of the leaders in the environmental movement are calling for a radical shift away from this Christian position. But what are the alternatives?

The need to survive provides a rationale for environmental concern within an *evolutionary* or *naturalistic* world view. Survival of the human species is the ultimate value. Man cannot continue to survive without a healthy planet. We must act to preserve the earth in order to assure the future of our children.

The evolutionary or naturalistic view of nature is, however, ultimately pragmatic. That is, nature has value only as long as we need it. The value of nature is contingent on the whim of egotistical man.{3} If, as technology increases, we are able to artificially reproduce portions of the ecosystem for our survival needs, then certain aspects of nature lose their significance. We no longer need them to survive. This view is ultimately destructive, because man will possess only that which he needs. The rest of nature can be discarded.

In the fictional universe of *Star Trek*, vacations are spent in a computer generated virtual reality and meals are produced by molecular manipulation. No gardens, herds, or parks are needed. What value does nature have then?

Another alternative is the *pantheistic* or *New Age* worldview. Superficially, this view offers some hope. All of nature is equal because all is god and god is all. Nature is respected and valued because it is part of the essence of god. If humans have value, then nature has value.

But while pantheism elevates nature, it simultaneously degrades man and will ultimately degrade nature as well. To the pantheist, man has no more value than a blade of grass. In India the rats and cows consume needed grain and spread disease with the blessings of the pantheists. To restrict the rats and cows would be to restrict god, so man takes second place to the rats and cows. Man is a part of nature, yet it is man that is being restricted. So ultimately, all of nature is degraded.{4}

Pantheism claims that what is, is right. To clean up the environment would mean eliminating the undesirable elements. But, since god is all and in all, how can there be any undesirable elements? Pantheism fails because it makes no distinctions between man and nature.

The Christian Environmental Ethic

A true Christian environmental ethic differs from the naturalistic and pantheistic ethics in that it is based on the reality of God as Creator and man as his image-bearer and steward. God is the Creator of nature, not part of nature. He transcends nature (Gen. 1-2; Job 38-41; Ps. 19, 24, 104; Rom 1:18-20; Col. 1:16-17). All of nature, including man, is equal in its origin. Nature has value in and of itself because God created it. Nature's value is intrinsic; it will not change because the fact of its creation will not change.{5} The rock,

the tree, and the cat deserve our respect because God made them to be as they are.{6}

While man is a creature and therefore is identified with the other creatures, he is also created in God's image. It is this image that separates humans from the rest of creation (Gen. 1:26-27; Ps. 139:13-16).{7} God did not bestow His image anywhere else in nature.

Therefore, while a cat has value because God created it, it is inappropriate to romanticize the cat as though it had human emotions. All God's creatures glorify Him by their very existence, but only one is able to worship and serve Him by an act of the will.

But a responsibility goes along with bearing the image of God. In its proper sense, man's rule and dominion over the earth is that of a steward or a caretaker, not a reckless exploiter. Man is not sovereign over the lower orders of creation. Ownership is in the hands of the Lord.{8}

God told Adam and Eve to cultivate and keep the garden (Gen. 2:15), and we may certainly use nature for our benefit, but we may only use it as God intends. An effective steward understands that which he oversees, and science can help us discover the intricacies of nature.

Technology puts the creation to man's use, but unnecessary waste and pollution degrades it and spoils the creation's ability to give glory to its Creator. I think it is helpful to realize that we are to exercise dominion over nature, not as though we are entitled to exploit it, but as something borrowed or held in trust.

Recall that in the parable of the talents in Matthew 25, the steward who merely buried his talent out of fear of losing it was severely chastised. What little he did have was taken away and given to those who already had a great deal.{9} When Christ returns, His earth may well be handed back to Him

rusted, corroded, polluted, and ugly. To what degree will you or I be held responsible?

This more thoroughly biblical view of nature and the environment will allow us to see more clearly the challenges that lie ahead. Our stewardship of the earth must grapple with the reality that it does not belong to us but to God though we have been given permission to use the earth for our basic needs.

Abuse of Dominion

While God intended us to live in harmony with nature, we have more often than not been at odds with nature. This reality tells us that man has not fulfilled his mandate. The source of our ecological crisis lies in man's fallen nature and the abuse of his dominion.

Man is a rebel who has set himself at the center of the universe. He has exploited created things as though they were nothing in themselves and as though he has an autonomous right to do so.{10} Man's abuse of his dominion becomes clear when we look at the value we place on time and money. Our often uncontrolled greed and haste have led to the deterioration of the environment.{11} We evaluate projects almost exclusively in terms of their potential impact on humans.

For instance, builders know that it is faster and more cost effective to bulldoze trees that are growing on the site of a proposed subdivision than it is to build the houses around them. Even if the uprooted trees are replaced with saplings once the houses are constructed, the loss of the mature trees enhances erosion, eliminates a means of absorbing pollutants, producing oxygen, and providing shade, and produces a scar that heals slowly if at all.

Building around the trees, while more expensive and time-consuming, minimizes the destructive impact of human society

on God's earth. But, because of man's sinful heart, the first option has been utilized more often than not.

As Christians we must treat nature as having value in itself, and we must be careful to exercise dominion without being destructive.{12} To quote Francis Schaeffer, We have the right to rid our house of ants; but what we have no right to do is to forget to honor the ant as God made it, out in the place where God made the ant to be. When we meet the ant on the sidewalk, we step over him. He is a creature, like ourselves; not made in the image of God, it is true, but equal with man as far as creation is concerned.{13}

The Bible contains numerous examples of the care with which we are expected to treat the environment. Leviticus 25:1-12 speaks of the care Israel was to have for the land. Deuteronomy 25:4 and 22:6 indicates the proper care for domestic animals and a respect for wildlife. In Isaiah 5:8-10 the Lord judges those who have misused the land. Job 38:25-28 and Psalm 104:27-30 speak of God's nurture and care for His creation. Psalm 104 tells us that certain places were made with certain animals in mind. This would make our national parks and wilderness preserves a biblical concept. And Jesus spoke on two occasions of how much the Father cared for even the smallest sparrow (Matt. 6:26, 10:29). How can we do less?

Christian Responsibility

I believe that as Christians we have a responsibility to the earth that exceeds that of unredeemed people. We are the only ones who are rightly related to the Creator. We should be showing others the way to environmental responsibility.

Christians, of all people, should not be destroyers, Schaeffer said.{14} We may cut down a tree to build a house or to make a fire, but not just to cut it down. While there is nothing wrong with profit in the marketplace, in some cases we must voluntarily limit our profit in order to protect the

environment.{15}

When the church puts belief into practice, our humanity and sense of beauty are restored.{16} But this is not what we see. Concern for the environment is not on the front burner of most evangelical Christians. The church has failed in its mission of steward of the earth.

We have spoken out loudly against the materialism of science as expressed in the issues of abortion, human dignity, evolution, and genetic engineering, but have shown ourselves to be little more than materialists in our technological orientation towards nature.{17} All too often Christians have adopted a mindset similar to a naturalist that would assert that simply more technology will answer our problems. In this respect we have essentially abandoned this very Christian issue.

By failing to fulfill our responsibilities to the earth, we are also losing a great evangelistic opportunity. Many young people in our society are seeking an improved environment, yet they think that most Christians don't care about ecological issues and that most churches offer no opportunity for involvement.{18} For example, in many churches today you can find soft drink machines dispensing aluminum cans with no receptacle provided to recycle the aluminum, one of our most profitable recyclable materials.

As a result, other worldviews and religions have made the environmental issue their own. Because the environmental movement has been co-opted by those involved in the New Age Movement particularly, many Christians have begun to confuse interest in the environment with interest in pantheism and have hesitated to get involved. But we cannot allow the enemy to take over leadership in an area that is rightfully ours.

As the redeemed of the earth, our motivation to care for the land is even higher than that of the evolutionist, the

Buddhist, or the advocate of the New Age. Jesus has redeemed all of the effects of the curse, including our relationship with God, our relationship with other people, and our relationship with the creation (1 Cor. 15:21-22, Rom. 5:12-21). Although the heavens and the earth will eventually be destroyed, we should still work for healing now.

For Further Reading

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5. Ibid, 47-49.
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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 unnecesssary 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," http://www.sepp.org/GWbooklet/withfigures.html. 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 http://www.cfact.org/Issues.htm.
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.

World Population

The battle to feed all of humanity is over. In the 1970s the world will undergo famines; hundreds of millions of people are going to starve to death in spite of any crash programs embarked upon now.

So predicted Stanford professor Paul Erhlich in his widely influential 1968 book *The Population Bomb*. It sold more than three million copies but its many predictions of global catastrophe never came true. Most famines in the 70s and 80s were in African countries saddled with Marxist governments or political turmoil.

Has Erhlich admitted these errors? No, in 1989 he wrote *The Population Explosion*. Without comment on his past mistakes he merely moves them into the future again, like those who predict the end of the world. Erhlich wrote,

> *The Population Bomb tried to alert people to the connection of population growth to such events…but society has turned a deaf ear. Meanwhile, a largely prospective disaster has turned into the real thing…. There still may be time to limit the scope of the impending catastrophe, but not much time.*

Are we really that close to disaster? In September of 1989 the *Scientific American* published a series of articles on "Managing Planet Earth." While somewhat pessimistic in tone, they are generally balanced in their reviews. In an article on "Strategies for Agriculture" the authors conclude, "World food production could grow significantly more slowly than the current rate and there would still be enough food for 10 million mouths by the time they arrive."

In 1968 Erhlich forecast "[I]f…our population growth, and our

water use continue, in 1984 the United States will quite literally be drying up." He also declared "Lake Erie has died…. Lake Michigan will soon follow it in extinction." In fact, Lake Erie has been reclaimed, and we have not exactly dried up either.

In 1980 Julian Simon, an advocate of population growth to fuel economic growth, bet Paul Erhlich $1,000 that prices of five non- renewable metals would go down. For years, Ehrlich and others had been prophesying that the world would soon run out of many metals, halting industrial growth. They claimed that the world's supplies of oil and gas would soon be exhausted and the West would be subjected to crippling shortages. In 1990 Erhlich quietly paid Simon the $1,000. Not only had the price of all five metals dropped, but the known world reserves has gone up!

In his 1989 book, *The Population Explosion*, Erhlich not only continues to predict apocalyptic devastation, but he connects population growth to many social problems we are currently facing. Most people are unaware," he writes, "of the role that overpopulation plays in many of the problems oppressing them…. Visitors to our nation's capital find homeless people sleeping in the park opposite the White House, and drug abuse and crime sprees fill the evening news. News about the AIDS epidemic seems to be everywhere."

It is certainly true that homelessness and AIDS are terrible problems, but to blame them on overpopulation in America seems either a display of great ignorance (unlikely, as Erhlich is a Stanford professor) or willful misinformation.

Are There Really Too Many People?

In the book of Genesis, Adam and Eve were given the command to multiply and fill the earth. In Genesis 9 Noah is given the same charge. We must consider the rest of the creation as we determine if we have yet fulfilled that command. But world

population is not the problem.

We share the planet with 5.7 billion people. If one could stand all the people in the world, men, women and children two feet apart, how much of the world would they take up? All of Africa? All of North America? New York state? If every person alive today stood two feet apart they would fill less than the area of Dallas County! And there would still be room for all the buildings! If the world's people were put together into families of four living on 50′ by 100′ lots, they could all live in the state of Texas, with more than seven thousand square miles left over. So the total number of people is not the real problem, at least at this point.

One of the statements one hears with depressing regularity in discussions of world population is "If the present rate continues. …" But in fact the "present rate" is almost never continuing. Consider a frequently used figure, the doubling time for a country. This is the time it takes for a nation of 100 million people to reach 200 million. It is also a measure of how fast new food supplies must be found. The faster the doubling time the more urgent the need for agricultural development.

In 1968 the world's doubling time was about every 35 years. This was frequently used as the basis for pronouncements that "if the present rates continue" the world will be faced with mass starvation in some small number of years.

But the "present rate" was already declining, and the world now doubles about every 82 years. And more conservative scholars had pointed this out years ago. As the standard of living of a country increases, its doubling time also increases. Thus the developed nations are close to stability now, and as less developed nations become more industrialized their population growth also slows. That is the basis on which many experts predict that the world population will stabilize at about ten to eleven billion people.

Malthus's essay "On the Principle of Population," has, as he himself said, "a melancholy hue" about it. It was Malthus, with his view that human populations would soon overtake food production, who inspired the labeling of economics as the "dismal science." But was Malthus right?

Malthus assumed that food supplies would always limit population growth. But in the two hundred years since he wrote, this has not been the case. By one means or another farmers and agricultural scientists have always found a way to increase farm production to keep up with population growth. But we have yet to find efficient ways to get food from where it is produced to where it is needed most.

One Christian has seriously suggested that old oil tankers, which now sit unused because of the huge world supply of oil, could be put back into service cheaply transporting grain from producers to consumers.

The fact that we have 5.7 billion people in the world is not why we have starving people. We have the surplus food to feed all the world's people. What we do not have are stable governments and economic opportunities that allow people to earn a fair wage for their labor.

Alarmism and Faulty Predictions

In his 1968 book *The Population Explosion*, Paul Erhlich announces the approaching food crisis. "'Then, in 1965-66 came the first dramatic blow…mankind suffered a shocking defeat in…the war on hunger.' In 1966, while the population of the world increased by some 70 million people, there was no compensatory increase in food production." He continues by laying out likely scenarios of the world being rocked by food rebellions that will lead to nuclear war and the devastation of the planet, possibly leaving cockroaches as the most intelligent creatures on earth.

Fortunately Erhlich was wrong. Food production continued to increase and more than keep pace with the population. So what did Erhlich learn?

In 1989 he wrote another book, *The Population Explosion*. Doom was again close: “In 1988, for the first time since World War II, the United States consumed more grain than it grew…only the presence of large carryover stocks prevented a serious food crisis. It is not clear how easy it will be to restore those stocks.”

Again, thankfully, Erhlich was wrong. By 1990, world grain production was up 50% from 1988! And it has continued to increase to the present.

Erhlich’s inaccurate prophecies are numerous. In 1968 he quotes Louis H. Bean approvingly: “My examination of the trend of India’s grain production over the last eighteen years leads me to the conclusion that the present 1967 1968 production…is at a maximum level.” But in seven years India increased its grain production by nearly 26%! By 1992 it had increased it 112%!

Famines are the exception in most countries, and even then absolute lack of food is usually not the problem. In a *Scientific American* article on world population one author says: “Food surpluses exist in many nations, and even when famines do occur the cause is much less the absence of food than its maldistribution which is often accentuated by politics and civil war, as in the Sudan.” This passing comment touches on the real problem. Most famines in the last twenty years are a direct result of internal wars in African nations.

Whether in Ethiopia, Sudan, or Somalia, the devastating famines and the hopeless faces of dying children we have all seen on TV are the result of politics. As one segment of the population wars against another, starvation is often a political weapon. And in each of the famine-torn countries of

Africa one can show that it has been disrupted distribution more than low food production that has caused people to starve to death.

The Bible itself gives evidence that population pressures do not cause famines. When is the first famine in the Bible? In Abraham's time, when the world population could not have been a problem. There have always been famines, but wise leaders have also known how to prepare for famines, as did Joseph later in Egypt.

Many researchers expect the world's population to level off between ten and eleven billion people. Two specialists predicted that "world food production could grow significantly more slowly than the current rate, and there would still be enough food for 10 billion mouths by the time they come."

The earth can provide all the food needed for the foreseeable future. So why are so many saying we must take powerful measures, like widespread abortion, to control world population?

Environmentalism and World Population

One of the driving forces behind much of the population explosion movement is that of environmental concern. People are afraid that the earth is being rapidly ruined, and they are sure that world population is one of the worst problems. Unfortunately there is some truth to this. There are areas in the world where too many people have been squeezed into one place, or where too many animals are grazing the grass to the ground. But these happen because other people do not care to help. The environment is damaged when people must choose between death by starvation and cutting down trees or overgrazing fields. What we need to protest is the way the people are treated, not their existence.

Many of the role models put forward by the environmental

zealots often have very mixed messages. Paul Erhlich praises Prince Philip of Great Britain for having “taken courageous stands in the population issue and its connection to environmental problems.” But this is the same Prince Philip who, when asked what he would like to be reincarnated as, replied: a “killer virus to lower human population levels.” Certainly a princely thing to say.

There are also ecological movements that hate people. The Deep Ecology movement is one such loosely organized movement. Groups like Green Peace, Earth First!, and the Animal Liberation Front tend to see the human race as a cancer on the environment, something to be suspected and tolerated, but only in small numbers. Some want to see no more than 250 million people on earth; others wouldn’t mind if humans died out altogether. These people see any large population as a problem, and are ready to take action to make the earth “right” again. Others have openly said that the AIDS virus is a good thing in that it will eliminate at least some people who are ruining the environment. Often the extreme positions of groups like these make other ecological organizations seem almost conservative by comparison.

Much of the time, people accept the argument that the earth is too crowded because that is all they hear. The media are usually not interested in reasoned, factual responses to problems because they lack the shock appeal that gets people to tune in, or read a paper, or buy a magazine. Thus, TV is filled with those who have extreme views, or who can speak eloquently about the latest crisis.

So how can Christians make a difference in all of this confusion? First, by actually being involved in caring for the creation God has given us charge of. Too many of us read in our Bibles about how God created the world and cares for it, but fail to act as if it were really true. Let us be actively involved in saving the creation, and then we may earn the right to speak about why we are doing it.

Most Christians were slow in protesting abortion; so too many of us have been slow in showing an active concern for the environment. The earth that God created can provide places to live and food for all that God has made. But just as we must take care of our own houses if we want them to last, so too we must take care of the earth God has given us to live in.

A Christian Response

The plight of starving people in other countries seems to be like many other major world problems so immense and complicated that we feel we can do little or nothing about them. We often feel overcome by the task before we even start. How should we begin? What should we do?

One stock statement of the environmental movement is "Think globally, act locally." As Christians we should change this to "Pray globally, act locally." Because our God has created the whole world, we, too, are to be concerned and to pray for it. Second, we can also show our concern by how we act in our own communities. And finally, we can give to those organizations that can act as our hands in other places.

Prayer is always our most powerful weapon. We need to be praying that God would make us sensitive to the needs of the world. Pray that God will help us be willing to give of what we have in order to help others. Pray that our lives will be an example to others of a real concern for the poor and hungry, just the way Jesus' own life was.

We can also encourage our churches to consider issues like world population and caring for the creation in the larger picture of biblical teaching. Instead of "Earth Day," why not "Creation Day?" Our churches should teach how stewardship can be lived in daily activities.

One good way to be involved is to give to a relief fund that not only feeds the hungry but also helps people develop the

skills to farm more efficiently. Many relief organizations are involved in community programs such as improving the local water supply or teaching new crop rotation techniques. Seek out these organizations and give to them.

Get alternative sources of information. Best-selling books and TV programs usually follow the most sensational sources of what's new. Find books that cover world hunger from different perspectives. Look in your local library. Write to Probe.

The problem in the world today is not that there are too many people. The earth can feed many more mouths than it currently does. But we must pray and work for justice to prevail in many of the countries that now suffer famines caused by political wars. More than enough food is produced each year to feed all the people in the world. But we do need to increase the standard of living and develop agricultural resources in a way that does not destroy the land in the process. We need Christians trained in agriculture and resource management.

Why not consider a career in agriculture? It would be very difficult to get into Saudi Arabia as a missionary. But if you go as an agricultural consultant or an irrigation specialist you will be greeted with open arms. "Sustainable agriculture" is the need of the future, and if you train in this field you will be able to go to almost any less-developed country in the world. What a great way to be involved in a greater harvest of both food and souls for the kingdom of God.

When we look out at the world we must not just see teeming hordes of people but men and women for whom Christ gave His life. And as we consider our responsibility to the world around us we need to remember what the Psalmist said: "The earth is the LORD's and all it contains" (Ps. 24:1).