

Creation Care: Our Stewardship of Creation

Part Three: Changing the Cultural Climate to Face Climate Change

Those who listen to NPR tend to agree with the scientific consensus about climate change; those who listen to AM political talk radio tend to think climate change is much ado about nothin'. What do those who listen for the voice of Jesus have to say in times like these?

The Science Behind Climate Change

Over the past thirty years oceanographers, meteorologists, and climate specialists have noticed the earth is warming, about $.74^{\circ}\text{C}$ in the last century. What's the big deal, you say? Think of the earth as an incredibly complex system, much as the human body is, and one that is fine tuned for life. How many other planets do you see throbbing with it? Consider how you feel when your average body temperature increases a few degrees to 102° . A few degrees above that and you're in a medical emergency. The average temperature of the earth back when the last ice age reached down to Ohio was 5°C colder than present. A change of $.74^{\circ}\text{C}$ is nothing to ignore, in other words, especially if average temperatures are trending upward.

As a result, the polar ice caps melting, sea levels are rising, and in general, dry regions are getting drier and wet regions wetter. People in low-lying areas are likely to see more flooding (half the world's population lives within 50 miles of the ocean), and insect borne diseases are likely to increase. African droughts will worsen.

The species extinction rate is likely to increase as animals adapted to a specific climate have to move into areas unable to support them. These effects are likely to worsen over the next hundred years because a majority of the carbon dioxide, responsible for a great deal of the greenhouse (warming) effect, remains in the atmosphere for hundreds of years. What we do now has big impact on future generations. Much like the budget deficit-- we run it up, but our kids have to pay.

Is this undisputed warming simply part of the natural cycle, or is there a new factor at work: warming caused by human activity? Since the dawn of the industrial era, humans have been burning fossil fuels (coal, oil and gas, methane) at an increasing rate. This releases pollution but also carbon dioxide into the atmosphere; CO_2 serves as an insulator, leading to warmer average temperatures. No one denies that the earth is warming. The only question is whether or not human activity is responsible for the recent increase in average global temperature.

If human activity is a cause, we can make warming worse by burning more fossil fuels, or make it better by reducing our use of fossil fuels.

The Intergovernmental Panel on Climate Change (IPCC) issued a report in 2001 saying there is a 65% chance that human activity is the primary cause of the recent warming

trend. Hundreds of scientists from many nations participated in this report. President Bush asked the National Academy of Scientists to examine the IPCC report; the NAS concurred with its finding. President Bush called for voluntary conservation of fossil fuels.

In 2007, a new IPCC report representing 113 nations increased the probability that human activity is the cause of global warming from 65% to 90%. The most conservative estimate of future warming is an increase of 4.5 degrees by 2100.

A majority in both political parties are now convinced. President Bush has called global warming "a significant challenge." Corporations like Shell Oil, General Electric, DuPont, Duke Energy, Alcoa, and Wal-Mart are calling for carbon caps. Exxon Oil ended its advertising campaign questioning global warming.

Yet some remained unconvinced.

Try to imagine some reasons people might be inclined not to trust the scientific consensus. A standard list might include factors as diverse as these:

1. A distrust of science in general, especially the complex science of climate change.
2. Difficulty imagining that human activity could actually change the global climate.
3. The influence of vested interests (energy producers, corporations that depend on energy consumption, etc.), who fear they might lose power if carbon emissions are reduced.
4. Distrust of the environmental movement for ideological and other reasons.
5. Distrust of the political or social perspectives of those who tend to trust the scientific consensus.
6. Concern over the need to change comfortable lifestyles.
7. Awareness of scientific data that doesn't support the consensus.

What does a faith perspective rooted in a biblical worldview have to say about a situation an issue like this?

Obviously, the Bible doesn't address climate change, per se, but does it foresee the possibility that humans could have this level of global impact? Is there room for a positive view of science in the biblical worldview? Is there any common ground, rooted

in biblical principles of environmental stewardship, for those who trust and those who distrust the scientific consensus, to agree on a common course of action?

Let's consider these questions in turn.

Biblical Perspective On Human Potential for Negative Global Impact

First of all, the Bible anticipates our capacity for global impact. In the aftermath of the fall, God quickly recognized our potential for harming the earth.

"Now the earth was corrupt in God's sight and was full of violence. God saw how corrupt the earth had become, for all the people on earth had corrupted their ways." (Gen. 6: 11-12) Here, *corrupt* in Hebrew is *sahat*: to be corrupt, to be ruined, marred; not just moral corruption but more general, including physical ruin. Early on, God was concerned about our capacity to "sahat," or mar/ruin the earth.

God was alarmed by our capacity for evil when he saw our technological prowess, in the tower of Babel story in Genesis: *"If as one people speaking the same language they have begun to do this, then nothing they plan to do will be impossible for them."* (Gen. 11.6)

The notion that we might have capacity to affect a global system like climate is well within the biblical worldview....

Biblical Perspective on the Value of Science

Is there room for a positive response to science in biblical world-view? This is a tougher question because science as we know it hadn't been invented during the biblical era. But the possibility of something like science fits in well with biblical worldview. The original command for humanity to "multiply and fill the earth" anticipates the need for growing complexity, cultural development, including, presumably technology and the science that advances technology.

The Bible also has a high view of reason. *"In the beginning was the word and the word was with God and the word was God."* (Jn. 1: 1) Here, *word* in Hebrew is *logos*; a Greek concept that includes the idea of "reason."

The biblical word for "world" is "cosmos": an orderly system; the world is a cosmos, not a chaos. Because the world is an orderly system, we can make sense of it, and reason is a tool for making sense of the world.

The book of Ecclesiasticus, which reflects the biblical worldview, and was a book that shaped Jesus' thinking, and which honors medical science: *"Honor the physician for the need thou hast of him...for all healing is from God...The skill of the physician shall lift up*

his head, and in the sight of great men he shall be praised. The most High hath created medicines out of the earth, and a wise man will not abhor them....The most High hath given knowledge to men, that he may be honoured in his wonders. By these he shall cure and shall allay their pains..."

Oceanographers and climate specialists can be viewed as physicians of the earth. There is good reason to believe that God has conferred this branch of knowledge to allay suffering.

One of the challenges of modern life is the growing complexity of science. The science behind climate change is complex. The fact that the IPCC report assigns a probability to the likelihood that human activity is the primary cause of global warming suggests that the science itself is complex.

How do non-specialists evaluate the science? Most of us don't have the time or the background to master the details so we have to decide where to get our most reliable information and perspective on the science.

Where to Get Your Scientific Perspectives

1. Get your science from the scientists not the talk-political-entertainment-news people. Jon Stewart, Rush Limbaugh, Sean Hannity, Al Franken, are all self-described entertainers, using the news as their "schtick." Whether you choose to entertain yourself with these guys, don't get your science from them! The science experts they interview are selected to fit the schtick. Even when they wrap themselves in patriotism and religion, don't get your science from them. They are entertainers!

2. Get your science from the scientists not from religious leaders. Whether human activity is causing global warming is not a religious question, it's a scientific one. The only way we'd know such a thing is happening is through science. Religious and other leaders have a voice in the issues raised by science, because our whole society has to work together to face issues like this. Just don't use them (including me!) as your primary science source.

Many Christian leaders have offered opinions on global warming. Three with the largest media megaphone have varying perspectives. James Dobson thinks it's overblown. Pat Robertson now says it's a real problem. Rick Warren says it's a real problem that we must address. For what it's worth, my own view based on my best understanding of science is this: there is no compelling reason to doubt the scientific consensus. You will draw your own conclusions, but base them on the science, and not the sample you get from the news talk political entertainment shows, or from you favorite religious leader.

Is There Common Ground That We Can All Occupy?

Now to the most important question: Is there common ground in the climate change debate rooted in biblical principles of environmental stewardship? Not every controversy has its common ground, but this one does. Jesus people should be looking for common ground: *"Blessed are the peacemakers, they will be called sons of God"* (Mt. 5:9)

Whether you trust the scientific consensus on climate change--that it is likely caused by human activity--or you distrust it, biblical principles of environmental stewardship lead us to same response: conservation of fossil fuels (coal, oil, gasoline, methane) makes sense!

No one doubts that the burning of fossil fuels has a negative impact on the environment. Electricity generated by coal burning plants comes at a heavy cost. It releases mercury into the atmosphere, which gets into the food supply (especially fish), and is harmful to unborn babies and children. In high enough concentrations it leads to mental retardation. Other pollutants increase the incidence and severity of asthma, cancer, other diseases. Pollution from the burning oil and gas is well known; we have the ozone action days to prove it.

Fossil fuels are a non-renewable resource. There will be plenty for us, so we don't have to worry for ourselves. It's future generations who will face the shortages. That alone is biblical grounds for conservation now!

Americans constitute 4% of world population, yet we burn at least 25% of fossil fuels. At what point does it become more than our fair share? The more we use, the more power we give the oil producing countries which have become breeding grounds for the ideological perspective that led to 9/11. What would prudence, a biblical virtue, suggest we do?

I was saddened to learn that a friend of mine who lives in a region dominated by Islamic militancy was killed by those whose movement is funded by oil revenues. The less fuel efficient we are, the more we prop up oil prices, the more revenue we generate for the movements that persecute Christians and other religious minority groups.

In 2001 our President asked us to conserve. Since then we've only increased consumption. What if God is asking us--commanding us--to conserve? How many reasons do we need?

Does the Bible give us any assurance this is not an issue we will answer for? That God's heart is "Use as much as you feel you need or want, regardless of impact on others, future generations...."

So let's be the sons of God. Let's be peacemakers. Let's focus on our common ground. Whether you accept the scientific consensus on global warming or distrust it, we can all agree on the need to reduce our use of fossil fuels. We're using more than our fair share, so let's play nice!

Top Ten List of Things to Do Now:

1. The easiest one thing: replace five regular light bulbs with compact fluorescent bulbs. If every home did this we could save the energy of 21 coal burning power plants. These bulbs cost more, but last 5-8 years and use 75% less energy. They contain trace amounts of mercury, so they need to be recycled. We are exploring the possibility of being a recycle center for these bulbs here at our church facility.
2. Reduce, reuse, recycle: paper, plastic, newspaper, aluminum cans. A 4" stack of newspaper = 1 tree. Trees absorb carbon, and reduce that amount that goes into the atmosphere
3. Insulate your home: save energy and money.
4. Be thrifty with heating and cooling: turn down the thermostat while you're asleep or away from.
5. Reduce dependence on oil and gas: keep tires inflated, get the most fuel efficient car that meets your real needs; conserve fuel, use the bus.
6. Buy energy efficient appliances.
7. Turn down appliances.
8. Don't leave the water running...showers are better than baths.
9. Get an energy audit.
10. Become an informed steward and encourage policy makers toward wise conservation policy

What the Church Can Do Now To Help, Not Hinder

1. Abandon the Culture Wars! The culture wars do not help us work together for the common good. Those concerned about global warming are viewed by the culture warriors as "environmental wackos"; those not convinced are viewed as cultural Neanderthals. Each side tends to hold other in contempt.

We don't make God proud by being culture warriors or taking cues from culture warriors, who make their living off spoils of culture war. Let's stop aping their contempt toward the other side!

Jesus put us on short leash in contempt department. In the Sermon on the Mount, he reserves his sternest warning for those who show others contempt (see Mt. 5:21-22). Shame on us every time we treat our fellows with contempt, thereby making it harder for us to work for common solutions together!

2. Pray for and seek Wisdom! Let's pray for wisdom for ourselves, for our elected officials, for our business leaders--anyone who has to wrestle with these issues.

Back in 1970's two California scientists began to warn us about the destructive potential of Chloroflourocarbons (CFC's) on the protective ozone layer in the upper atmosphere. Everyone thought they were nuts--the companies that made CFC's especially. But the science kept adding up, confirming a problem. Then we started to notice a hole in Ozone layer over Antarctica that was growing. Under the Reagan administration, scientists and world leaders met in Montreal and agreed to reduce use of CFC's and eventually replace them. Now the hole is shrinking!

"The Montreal Protocol is a model of cooperation. It is a product of the recognition and international consensus that ozone depletion is a global problem both in terms of its causes and effects. The protocol is the result of an extraordinary process of scientific study, negotiations among representatives of the business and environmental communities, and international diplomacy. It is a monumental achievement." -- President Ronald Regan, April 5, 1988

3. Add Love to the Equation! Compared to climate change, the problem of Ozone depletion involved a simple fix. The climate change issue is amazingly complex, with no simple fix in sight. We need mega wisdom from on high and mega love to cooperate across cultural, religious, political and national boundaries.

Blessed are the peacemakers! Let's be among them--part of the solution, not part of the problem! For that we must ask Prince of Peace to calm any war in our hearts, soften them by power of love. This is a time for those who believe that God is Love, to add a little love to the cultural equation.