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Global Warming, Blind Faith, and Global Delusion

A Review of *Taken by Storm -- The Troubled Science, Policy and Politics of Global Warming* **by Christopher Essex and Ross McKitrick**

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"*See to it that no one takes you captive through philosophy and empty deception, according to the tradition of men, according to the elementary principles of the world, rather than according to Christ.*" **(Colossians 2:8)**

This past January I met Dr. E. Calvin Beisner at a Christian think tank sponsored by Christian Witness to a Pagan Planet. Beisner told me about a book that shows that the irreducible complexity of the numerous factors that contribute to climate makes it impossible to know or predict future climate changes. Beisner is involved with the Cornwall Alliance and has written on the topic of climate change.[1] This article is a review of the excellent book that he recommended.

In November 2007 I published an article for Christian Worldview Network (CWN) entitled *Global Warming and the Definition of Sin*.[2] In that article I claimed that some environmentalists with neo-pagan worldviews (e.g., Al Gore) have posited the "truth" of CO_2-induced global warming, defined the production of CO_2 as "sin" and thereby made all humans guilty of a holocaust-like assault on planet earth. I concluded that even if CO_2 is doing what this group says it is, there is no way to repent of this "sin" because human beings cannot live without putting more of it into the atmosphere. Essex and McKitrick's book (both are Canadian college professors) confirms my conclusion that the global warming scare is more religion than science. The book begins and ends with chapters about what the authors call "The Doctrine of Certainty." We shall begin by examining this "Doctrine."

THE DOCTRINE OF CERTAINTY

Taken By Storm[3] will not be easy reading for those who have not studied math and science at a college level. But it would be worth obtaining a copy just to read chapters 2 and 10 entitled "The Convection of Certainty" and "After Doctrine." These chapters contain their thesis statements. The intervening chapters contain the scientific arguments to prove what they say in those chapters.

The Doctrine of Certainty is explained by nine points: 1) The Earth is warming. 2) Warming has already been observed. 3) Humans are causing it. 4) All but a handful of scientists on the fringe believe it. 5) Warming is bad. 6) Action is required immediately. 7) Any action is better than none. 8) Claims of uncertainty cover only the ulterior motives of individuals aiming to stop needed action. 9) Those who defend uncertainty are bad people. (*Storm*: 23) The title of the book is based on a thunderstorm analogy: "The Doctrine is the product of a sociopolitical thunderstorm. The differences between the parties are the pressure gradients that set up the flow, and the warm, moist air that feeds it is the ambient fear that we all can have about an unknown future." (*Storm*: 24) The authors' thesis is that the Doctrine is false.

> To avoid being deceived, each of us must think *critically* in all areas of life, about topics concerning special revelation (the Bible) or general revelation (what can be known through observing the creation). This article concerns deception in the area of general revelation, and thus is a departure from past issues of *CIC*. But because of its far-ranging effects, the deception encompassing the global warming debate is indeed a critical issue.

Essex and McKitrick show that they are savvy not just about science, but about human nature, contemporary culture, and how people make decisions, including political decisions. When it comes to a complex issue like climate change over time, people who are required to make decisions do not have the ability to examine the issues carefully for themselves. This includes politicians who have to rely on others. They point out that many people, even those in important positions, lack the required knowledge of science and mathematics: "Even many educated people are scientifically and mathematically illiterate, because science and mathematics have all but disappeared from the core of a well-rounded education in many places of the world. Many sophisticated and influential people today have a level of scientific and mathematical knowledge that would not stand up to that of a monk from the Middle Ages." (*Storm*: 28) (I believe another reason for this is the fact that people are being asked to specialize in a field of knowledge earlier in life.) Whatever the cause, people are making momentous policy decisions that will affect the world population's well-being based on science that they

cannot personally understand. This would not be so bad if the process included a reasonable system of adjudication of ideas. But it does not.

Man-caused climate change has become a Doctrine supposedly only denied by skeptics who are thereby "sinners" because what the authors call "Official Science" has so declared it. Science is not an "official" enterprise; it is individuals who study and hope to understand various aspects of general revelation in their fields of endeavor. When non-scientists need to decide something that requires expertise, authorities are called in to testify to their views. In a scientific world, ideas are debated and put through rigorous peer review. Theories are tested as to their "fit" with the "real world." But Official Science is another matter. Essex and McKitrick say, "If an authority makes a pronouncement, doubting it or suggesting alternatives is not necessarily viewed as just seeking the truth; sometimes it is taken as a challenge to power. . . .So a political struggle replaces testing an idea." This is precisely what has happened with global warming. They explain further:

> Governments consult and employ people to act as science authorities, as do other institutions such as the media. The collective voice of these authorities makes up Official Science. . . . Official Science may serve many functions, but it is most important to understand that Official Science is not science. Moreover, those involved with it represent only a minority of people involved with science, and they are not appointed by scientists to speak on their behalf. (*Storm*: 36)

I saw a case of "Official Science" in the local newspaper the other day. A meteorologist is hired by the paper to write a daily weather column. He often uses this to promote his belief in global warming. But what is amazingly ironic is that he readily admits that when it comes to local weather, the "models" have improved but are very uncertain more than a few days out. So he admits that it is very difficult to predict local weather even in the short term. But when it comes to something exponentially more complex, future global climate as it changes over years, this same man claims to have near utter certainty! He, like most of our citizens, has become mesmerized by the religion of global warming so much that he has lost all scientific common sense.

This case in our local paper illustrates something that Essex and McKitrick point out:

> No one expects computer models of the weather to be that certain. Yet many have come to expect climate models, which treat a far more difficult scientific problem, to be so certain that a gap between predictions and reality over a small region of the world [that in 2002 it was getting colder in Antarctica] is a worldwide news event. The truth is we have much less reason to ascribe certainty to climate models than we do to weather models. So why the headlines? . . . It is among other things, the Doctrine at work. (*Storm*: 70)

A Doctrine, which is not based on truth, revealed or otherwise, causes many to think they know what they do not know.

Essex and McKitrick explain that because Official Science must deal with social realities that have nothing to do with science, it is a different entity than science: "So while scientists are skeptical of their own work and that of others, Official Science speaks with the simple confidence that good politics and journalism demands, but which science abhors." (*Storm*: 36) My weatherman was "doing" Official Science and thus displayed confidence in what he as a scientist cannot be confident about: the future climate of earth and that it can be driven in a certain way by only one of the nearly infinite influences on it (man made CO_2). Official Science "knows" with near certainty what scientists readily admit they cannot know.

The Doctrine claims that there are no credible dissenters. Essex and McKitrick (and the Cornwall Alliance) disprove this. They are deemed "not credible" not on the grounds that they lack credentials or evidence, but rather on the simple basis that they are called "dissenters" who dare question the Doctrine. (see *Storm*: 50, 51). They claim that because of how "dissenters" are treated, regular scientists drop out of the debate: "Soon it is open season on scientific dissent by a mob of activist journalists, activist environmentalists, and self-appointed "straighteners" who feel a dose of vigilantism is their personal contribution to making a better world." (*Storm*: 52) They even cite a case of a Danish government tribunal putting a man on trial for writing a skeptical book on this topic: "Yes, in Denmark, in 2003, a man was put on trial for writing a science book. You can take the people out of the Middle Ages, but you can't take the Middle Ages out of the people." (*Storm*: 54)

THEORIES AND MODELS

Essex and McKitrick state there is no theory of climate. (*Storm*: 71) Why? Simply because of how differential equations work.[4] These equations concern variables and how they change in various dynamic relationships. The authors explain the basics of such equations on page 72 of the book. They state, "The theories of basic science are written in differential equations." They further explain, "A solution of a differential equation is not a number or a few numbers; it is a function. A function is a rule between variables." With a valid equation one can predict the status of certain variables in their relationship to one another over time (just as one example). Such mathematics is used to predict where planets will be in relationship to one another at a certain future time.

This needs to be understood in order to understand why there can be no theory of climate. Chapter 3 of *Taken by Storm* takes us through the world of linear equations, nonlinear equations that apply to fluid dynamics, chaos the-

ory, kinetic theory, turbulence, and ultimately face to face with the impossible complexity of climate. They describe the complexity of fluid dynamics that, unlike climate, can be put to controlled experiment: "The experiments are bedeviled by the fact that a turbulent fluid is active on scales smaller than the size of the finest experimental probes. Thus, the measurements themselves are not of the actual variables but of some kind of unspecified, instrument-dependent average of the variables, in only one small region of the fluid." (*Storm*: 78) Fluid dynamics and turbulence are only a small part of everything that makes up global climate and these cannot be perfectly understood even in a controlled setting.

Another problem is called "sensitivity of the initial conditions" which simply means that something apparently small and insignificant can have a major significant result. This is known as "the butterfly effect." A flap of a butterfly's wings might throw off a weather forecast. This means that in dynamic systems some tiny variation in an initial condition may create an enormous change in outcome. As Essex and McKitrick explain, "there was no level of detail that can be safely ignored." This is also known as chaos theory.

What this all means is that there can be no theory of climate. The authors claim that even if we had what they call an "Enchanted Computing Machine" (ECM) ("that can magically cope with all of the details needed to compute all of the theory while securing all the necessary initial data to implement it") we still could not get firm answers to climate. (*Storm*: 86) They say, "The dream of the strong ECM, wherein perfect predictability is achieved through computation in complete detail, died with the chaos revolution." (*Storm*: 87) The tiniest change could throw everything we thought we knew out the window. So we cannot compute climate based on any known theory.

Those interested can read the details of their arguments in their book. Here is a nice summary of the issue:

> We could talk about how the oceans interact with the land, the exotic thermodynamic property of ice compared to other solids that makes it possible to skate and ski, and also for glaciers to flow, making them the subject of wonderful mystery and unpredictability. We could talk about the land-surface-air interactions, and how we not only have to think about flow over land of different heights, but around buildings, through forests, past every leaf. We could talk about the ever so important first kilometer of air above the ground and ocean, and all of the rich chemistry that goes on in the air and ground; the gases emitted by the soil and volcanoes; the gases absorbed and lost; the chemicals that the rain cleans out of the air; the fluid-solid interactions of rivers. And we have not even arrived at butterflies or seagulls, or the family dog for that matter. (*Storm*: 95)

So we do not know and cannot know by theory or computer prediction the future of climate. It is unknowable.

In modeling, detail is thrown away because there are far too many details to process. (*Storm*: 96, 97) But models are "something between science and art. Some are more science while others are more art, and there is everything in between." (*Storm*: 100). Meteorological models are examples of modeling. But they are based on repeated experiences that are observable over time. Climate is different: "Unlike meteorological models, climate model parameterizations have not been tuned after repeated experience with climate change. Moreover, unlike meteorologists, no climatologist has lived through repeated events in his or her field so as to acquire a personal sense of experience of what to forecast." (*Storm*: 101) The modeler cannot forecast climate in the manner that weather is forecast.

Essex and McKitrick also show there is no such thing as a global "temperature." For there to be a single temperature there must be "thermodynamic equilibrium," and that doesn't even exist in a room! (*Storm*: 114, 115). Temperature is not a "thing" but, "a number that represents the condition of a physical system." (*Storm*: 117). Averaging various temperatures in various locations is as meaningless, they say, as averaging all the numbers in a phone book to get an average phone number. They explain that this is because temperature is an "intensive quantity" not an extensive one with an "additive property" like energy. (*Storm*: 117) They illustrate this by stating, "If you join two identical boxes with the same energy and same temperature together, the resulting box will have twice the energy, but it will not have twice the temperature. There is no amount of temperature; it measures the condition of the stuff in the box." (*Storm*: 117)

So one cannot take a temperature somewhere in each of the 50 states, add them all together, divide by 50, and have the "average" temperature of the United States at a given time. It would be a meaningless number. So how can one create a model that gives a temperature as an output and have it be meaningful? Essex and McKitrick comment: "The subtleties of the dynamics and thermodynamics are simply unpresentable, so the grand creations of the modelers have no impact. Instead, the modelers must suffer the indignity of having the intellectual products cheapened by the portrayal as fancy thermometers. They are not thermometers and global climate isn't temperature." (*Storm*: 121)

This is not to say that one cannot take a temperature at a certain location over a period of years and come up with average highs and lows for that location (which, of course, is done throughout North America). But the results are statistics, not an actual temperature. The statistics are only meaningful if the same process were used to gather the data and nothing significant changed at the location where data was gathered. As Essex and McKitrick point out, that is not the case even with local temperatures. The Global Historical Climatological Network that gathers

data from stations that record local temperatures had between 12,000 and 15,000 locations from which to gain data between 1950 and 1970. In 2000 there were less than 6,000 such locations. (*Storm*: 154, 155). This has seriously damaged the data quality and calls into question the statistics used to generate a number falsely called a global "temperature." (Essex and McKitrick with tongue in cheek call this number "T-Rex" which supposedly is going to devour the planet.) Furthermore, the data gathering stations that remain open are often located in airports in larger cities where the urban heat island effect is a factor. The bottom line is that the data gathered before the large decline of data locations that happened precipitously in about 1990 is of a different nature than the data gathered since 1990. Essex and McKitrick conclude "[I]f you are calculating an index and the circumstances change, the index must be terminated, and replaced by a new one. T-Rex has had it both ways. It is an index whose sampling rules changed dramatically at several times, but it has not been terminated particularly in the beginning of the 1990's. Data quality rules say, T-Rex must be terminated!" (*Storm*: 157)

There is more to say about global "temperature," and Essex and McKitrick reveal many important facts and issues in chapters 4 and 5 entitled "T-Rex Devours the Planet" and "T-Rex Plays Hockey." The latter title refers to a famous hockey stick-shaped graph that was published to prove global warming. Ross McKitrick and another scientist were able to show serious errors in the original work that created the hockey stick graph to such a degree that the issues ended up on the cover of *The Wall Street Journal* in 2005 and in testimony before congress. The hockey stick graph was eventually debunked. (*Storm*: 171 – 173). They cite the reason that a single flawed graph ended up being the center of a political storm: "It is far worse to have to face it [errors in one's work] when the PUN [Panel of the United Nations on climate change] has elevated your disputed work onto such high pedestal that it is virtually an act of divine infallibility, worshipped by international media throughout the world." (*Storm*: 171) Again, flawed science has become a religion.

A LYING METAPHOR: "GREENHOUSE EFFECT"

In selling an idea to the general public, complex scientific issues are often boiled down to a catchy metaphor that takes on a life of its own. That is the case with global warming and "greenhouse gasses" and the "greenhouse effect." Essex and McKitrick state, "Science by metaphor is always risky business, and one misleading idea in this category has done more damage to peoples' understanding than any other. You have heard of the one that we have in mind: the greenhouse effect." (*Storm*: 125). The metaphor is used to promote the idea that putting CO_2 into the atmosphere will make the earth more like a greenhouse and thus raise global "temperature" (remember this is a statistic and not an actual measurement).

The metaphor itself is fundamentally wrong on two important levels. The first is that greenhouses are not what they are because they are notoriously high in CO_2 levels. The opposite is true. Greenhouses exhibit a lack of CO_2 that can hinder plant growth.[5] This is caused by the fact that plants absorb CO_2. So adding CO_2 to the atmosphere does not make earth more like a greenhouse which tends to have less CO_2 than the outside air, particularly in the winter months. The presence of CO_2 is not what makes a greenhouse warmer than the outside air. That part of the metaphor is based on myth and unreality.

The second serious error of the greenhouse metaphor is that greenhouses do not work like the atmosphere in general. Essex and McKitrick have illustrations to show that "Greenhouses don't work by the greenhouse effect!" (*Storm*: 126) There are aspects to energy flow balance, infrared radiation and fluid dynamics. These are "two basic mechanisms for carrying away the energy." (*Storm*: 126) A greenhouse controls one of the two—fluid dynamics:

> A greenhouse acts like the picture on the bottom. Someone comes and shuts off the fluid dynamical energy drain from the surface, by putting something up, like glass or plastic, that the inbound solar radiation can pass through but air cannot. It doesn't matter what the material is, the effect is quite pronounced. The explanation is both theoretically and experimentally certain. (*Storm*: 126)

So with the fluid flow shut off, the energy flow out via fluid dynamics is stopped and the greenhouse heats up. CO_2 is about infrared radiation, not fluid dynamics. Greenhouses are not warm because they trap infrared radiation. But that is the very issue that global warming alarmists are concerned about. But this has nothing to do with a greenhouse. No one could possibly stop the release of energy through fluid dynamics from planet Earth. Fluid dynamics is what causes the lack of knowledge about future climate:

> As we have emphasized throughout this chapter, this [the fluid dynamic flow of energy] is largely turbulent, and we don't know what it would do. We can't solve the governing equations. Recall, that in the case of turbulence we can't even forecast from first principles the average flow in a simple pipe. (*Storm*: 126)

The complexities of the matter are such that we cannot know or predict. Greenhouses are controlled in a manner that produces certain heating; the planet is not.

There are further complexities to consider, such as aerosols ("Microscopic particles formed of every known substance that get carried by air movements into the atmosphere and slowly fall to the surface" – 338). As Essex and McKitrick point out, "We have blinds (clouds and aerosols) and air condition-

ing (fluid motions and evaporation from the surface) and we cannot tell what they will do. Could it be more unpredictable?" (*Storm*: 128) The earth cannot and will not ever be a greenhouse as long as there is fluid dynamical flow of energy. Say our authors, "That [greenhouse effect] is the metaphor to which people's minds retire. It is unscientific nonsense. But it props up the Doctrine." (*Storm*: 128) Once again we return to religious faith.

Before we leave the deceiving greenhouse metaphor, we should also consider the fact that CO_2 is not the only infrared absorbing gas to consider:

> So-called greenhouse gases have absolutely nothing to do with greenhouses. We will call them 'infrared-absorbing gasses' here. The most important of them, radiatively speaking, isn't carbon dioxide, it's water vapour! Water is more important to the radiative transfer of energy than all of the other infrared gases combined, and there are about a half-dozen usual suspects. However, too often water vapour will not be on the list of 'greenhouse gases' even within some professional discussions. (*Storm*: 129)

So why leave out water vapor? Because it adds to the uncertainty of climate change, and true believers need certainty to promote their plans: "When water is forgotten as an infrared-absorbing gas, the whole unsolved climate problem fades from sight and the Doctrine grows. Most public discussion of global warming in the past few years has been built on incoherent clichés and misleading metaphors." (*Storm*: 130).

The term "carbon" is also bandied about with discussion of "carbon offsets" and so on. Carbon is found throughout the planet and comes in many forms, such as diamonds and pencil "lead." Carbon is not the issue with infrared absorbing gases, only CO_2. Essex and McKitrick do some simple demystifying: "Water vapour is king among infrared gases, yet is rarely mentioned, even though the behaviour of other infrared gases cannot be understood unless you can figure out everything due to water vapour first. Carbon is not carbon dioxide. Simple, but it needs to be repeated." (*Storm*: 130) We should start thinking more critically and not allow ourselves to be deceived by metaphors that have no basis in reality.

DO HUMANS CAUSE CLIMATE CHANGE?

As my wife and I were driving home from northern Minnesota we saw a billboard that read, "The icecaps on Mars are melting, are humans causing it?" The sign advertised for a Web site that disputes human-caused global warming. What is interesting is that those who are not "believers" in the official Doctrine are marginalized as "contrarians" who refuse to get with the "consensus." For example, a scientist in Russia pointed to the diminishing of the "ice caps" (actually carbon dioxide caps) on Mars as evidence that whatever "warming" earth has experienced is due to the sun, and not to human activity.[6] The same article that reported his findings quoted another scientist: "His views are completely at odds with the mainstream scientific opinion, and they contradict the extensive evidence presented in the most recent IPCC [Intergovernmental Panel on Climate Change] report." So Official Science cannot be contradicted by evidence! It is reasonable to ask whether there is any evidence against the Doctrine that can be allowed into the discussion.

Essex and McKitrick claim that Official Science starts with the assumption that whatever average modelers of climate construct should be flat over time if all human influence were removed. (*Storm*: 216) With that faulty assumption, graphs are created that show change and the change must be caused by something humans have done: "The assumption is, in effect, that unless something forces it from outside the system, any particular average you construct (e.g., temperature, 'radiative forcing') ought to be flat over time. It is all very cozy for the 'heat theorists.'" (*Storm*: 216, 217) But this is not based on reality. Climate changes over time, and it has for centuries. The causes of such change are complex. But the models are constructed to show that humans are now the culprits: "There is little sense that more work is needed on the models. Models are not perfect, they say, but they can't be wrong, in classical doublespeak. They must conclude it is human moral turpitude that is the cause of the discrepancy." (*Storm*: 217) We are back to religious categories again—humans are "sinning" by producing CO_2. As I asserted my CWN article about global warming, this is a "sin" of which it is impossible to repent.

The key issue is that we cannot know what adherents of the Doctrine claim to know:

> We have no way of knowing, even in principle, what the 20th-century climate would have looked like if no one had ever learned how to extract and use fossil fuels. Yet much of the debate between "skeptics" and "believers" in global warming seems to be based on the assumption that we know what the climate would have looked like (in particular that T-Rex, however computed, would lie flat) and we just have to hash out whether this or that temperature statistic is really going up or not. (*Storm*: 224)

But it is not reasonable to assume that temperatures at various places on earth would be static over the decades if only man did not exist on the earth. It is not possible to know that. Essex and McKitrick claim "The climate can vary, jump, rearrange itself, and generally defy all expectations on any time and spatial scale. There is no requirement to 'explain' it by an external mechanism. The internal dynamics of the climate system are more than adequate to account for just about any climate change, no matter how large or sudden." (*Storm*: 224)

The authors do a brilliant job of showing how those creating climate

models can assure certain outcomes by changing the scaling parameters looking for "signal-detection." The process means excluding many factors from the models. The results are determined by which are excluded. The process is circular and the conclusions are meaningless (*Storm*: 227).

The question is, "Are humans causing global warming?" The answer is, "We cannot know." We cannot even measure global temperature accurately, and if we could we would not know what is making it increase or decrease. So if we adopt the mentality of human-caused global warming, we have taken a religious leap of faith.

THE DIFFERENCE BETWEEN NESCIENCE AND UNCERTAINTY

The term "nescience" means "lack of knowledge." Essex and McKitrick illustrate the concept by asking, "How many extraterrestrials live on Earth?" (*Storm*: 232) Of course if we do not know such beings exist, we cannot discuss their number. We are uncertain about how many humans exist on earth (exactly) but it is reasonable to discuss a rounded number. But when we do not know if something exists, we have nescience, not uncertainty. Our authors explain:

> Nescience is, therefore, not the same thing as uncertainty. For one thing, people feel a need to use adjectives with uncertainty [like "a little" or "very"]. But adjectives are not necessary with *nescience*. If we are nescient about the effect of carbon dioxide on local temperatures, no information is added by saying we are "a little" or "very" nescient. Also, "uncertainty" suggests that more study can be counted on the help the situation. . . . But often a situation of nescience is so intrinsic to the problem under study that more data and bigger computers will not resolve the problem. (*Storm*: 232)

They go on to discuss what is known and not known about past CO_2 levels through processes like sampling bubbles in Antarctic ice and ancient tree leaves buried in peat. The conclusion of the discussion is this: "The specialists in the field may never sort out the relative stability of CO_2 levels during the past 10,000 years within certain wide limits." (*Storm*: 240)

As mentioned before, the problem with trying to equate climate change to variations in CO_2 over time is that doing so requires the creation of models that require many variables be transformed into constants in order to make the modeling possible. Essex and McKitrick show that by changing certain numbers, the models can predict most anything: "In this [one they explained] simple model, you can also get cooling by allowing a small variation in the fraction of sunlight that is reflected before it gets into the system. And there are other arbitrarily fixed things that can be changed too, to get nearly any outcome at all. . . . Once you allow the things that are held constant, for no physical reason, to change, you can get models that do nearly anything." (*Storm*: 246) The models are not the same as real climate and have no predictive power in the real world. The output of the model is determined by what factors the person who creates the models decides to make important and which ones to artificially make constant. This is necessitated by the irreducible complexity of climate.

What we want to understand in this discussion is what we can actually know, even with some necessary uncertainty, about human caused global warming. In my opinion Essex and McKitrick make a profound point:

> The models show surface warming from adding carbon dioxide to the atmosphere because of their programming. They could yield surface cooling with different programming, without violating any physical law. All that is required is to allow things to change in the model that do, in fact, change in the atmosphere. This is not uncertainty, this is nescience. (*Storm*: 246)

So we are asked to believe in human-caused global warming in the absence of knowledge. This is the definition of a blind leap of faith, and a very costly one at that.

We can illustrate the problem here from special revelation (the Bible). What we know about God and the spiritual realities of the universe we know not by mere observation, but by the fact that God has spoken. Had God not revealed the truth about Himself and other spiritual matters to us, we would be like pagans using our imaginations to fill in the missing information. The issue of nescience is important in Christianity. If someone asked the oft-cited silly question of how many angels can dance on the head of a pin we would have to confess nescience. We cannot know what God has not revealed. Those who demand obedience to ideas that are not derived from special revelation are false prophets at best. They tell us that certain things about the spiritual world are true and expect us to behave accordingly. But they cannot teach what cannot be known. So we rightly reject them.

By analogy, demanding action based on nescience concerning general revelation is also abusive. We cannot be held accountable to what cannot be known. Those who claim to know what they cannot know and demand that we submit to their "knowledge" are the false prophets of general revelation. We should no more listen to them than we would listen to a Joseph Smith (founder of the Mormon religion).

Essex and McKitrick explain the relatively small contribution humans make to CO2 in the atmosphere:

> There are about 750 GtC (gigatons carbon) of CO_2 in the atmosphere. The stock of CO_2 fixed as carbon in land biota (plants, animals, and soils) is about 2,000 GtC, in oceans it is 40,000 GtC, and in fossil fuel reserves it is about 5,000 to

> 10,000 GtC. CO_2 is constantly being exchanged between the surface and the atmosphere. Plant respiration and decomposition releases and withdraws 60 GtC (plus or minus 2) annually into the atmosphere. The ocean releases and withdraws about 90 GtC (plus or minus 2). These are very large additions and withdrawals from the atmosphere: this is what we are believed to contribute in fossil fuel-based emissions, only about 7 GtC, or 5 percent of the total land and ocean emissions. Minor variations in natural release and withdrawal can swamp anything that we have contributed. (*Storm*: 234)

The large sources are not typically balanced they say. So we are being asked to assume the "guilt" for creating warming that might not have anything directly to do with CO_2, and if it does, our part is miniscule compared to the whole.

Essex and McKitrick go on to debunk other myths such as alarmism about sea levels rising (*Storm*: 283). They mention the benefits to plant life of CO_2 enrichment (*Storm*: 289). There are many facts that most people are not aware of because the official "Doctrine" is drowning out the voices of reason. Climate changes and is likely to continue to change in ways that we cannot know. But people have amazing ways of adapting to change. Thus Essex and McKitrick give this suggestion: "A better approach [than impoverishing people by reducing economic growth to reduce CO_2 emissions] to climate policy would be to continue pursuing economic growth around the world so that present and future generations will have the means to adapt and flourish in whatever climate they find themselves over the next century." (*Storm*: 290)

But such common sense is not even on the table in the public discussion. The major political candidates from both major parties in the U.S. are "believers" in global warming. Their religion will not allow them to think realistically. *Taken By Storm* makes it clear that we end up with the issue of sin: "The problem is that if we seriously look at the adaptation question and realize that it will be dead easy, the whole heroic enterprise of trying to reduce fossil fuel use and carbon dioxide emissions looks pointless, or even harmful. Nor would people be made to feel appropriate contrition for their sins, if they could simply adapt to the consequences without much notice." (*Storm*: 290)

ANSWERS TO THE DOCTRINE OF CERTAINTY

It is time to go back to the nine points of the Doctrine and answer some questions. Essex and McKitrick do this in chapter 10. Is the Earth warming? The answer is that because there is no single global temperature, we cannot give a yes or no answer. The Earth is not in thermodynamic equilibrium. Temperatures are going up and down here and there all over the planet. As they point out, "If there were some climate changes in the category of our sun going nova, or even something more moderate like a major ice age, then all of the infinity of local temperatures would be saying the same thing; namely, that it is heating or cooling everywhere or everywhen." (*Storm*: 315)

Has warming already been observed? The answer is yes, in many places; but then cooling as been observed in many places as well. "But what people have in mind here is that an 'unnatural' warming has been observed here or there. To conclude that would require some idea of what the natural temperature in a location is, but there is no such single thing." (*Storm*: 316)

Are humans causing global warming? We cannot know that. "Humans have modified the environment in which they live, and will continue to do so. But to conclude that humans are the one cause of climate change is to make the mistake of picturing our complex, chaotic climate as a thermometer in a green house." (*Storm*: 317)

Do all scientists but a few on the fringe believe it? The answer is "no." This is a political issue, not a scientific one. Essex and McKitrick explain:

> The critics, when not dismissed as "contrarians," are often referred to as "skeptics." A skeptic is someone who true believers do not want to invite to a séance. They have also been called "dissidents," bring to mind the internal opponents of the Cold War Soviet Union. Lately the term "deniers" and "climate criminals" have become more common as the political nastiness has grown. (*Storm*: 317)

The consensus is fictional and political. Scientists debate that which is debatable, "And climate change is debatable to say the least!" (*Storm*: 318) We have a religion at work here that takes human caused global warming as its own "special revelation" that has settled the matter once and for all.

Is it bad and should we act immediately? These, points five and six of the "Doctrine," have become meaningless. If we cannot forecast future climate change we cannot declare it to be good or bad. In my opinion, what we have is humans thinking they can control that which is beyond their control. They fear a possible bad future. It is true that catastrophes happen, including weather-related ones. Essex and McKitrick state, "Clearly, we cannot say 'it' is all bad and getting more bad, as some seem to want to do. We cannot function rationally this way." (*Storm*: 318)

Is any action better than none? This really makes no sense. We are asked to take action based on the possibility that something bad might lie in the future because humans are doing what they cannot avoid doing—creating CO_2. Essex and McKitrick make a humorous but valid analogy:

> The reasoning is that being a skeptic about the prospect of one's house burning down does not stop us from buying fire insurance. But if this was a case

> of buying insurance, the Kyoto Insurance company would be up on charges for fraud. You would be buying a policy for which it is unclear precisely what is being insured, for which the premiums cost more than the putative damages, and which does not pay any compensation in the event the damages occur. Would you be willing to buy such a policy for your home or auto? If so, please contact the authors. (*Storm*: 318)

So the answer is no, do not take action on something that may not exist.

Are the critics of the Doctrine bad people with bad motives? The final two points of Doctrine are based on the faulty logic of the *ad hominem* argument. Since we cannot know future climate change, how can people who say we cannot know be proven to have bad motives?

So the "Doctrine" is false and misleading. But most of the world believes it.

Conclusion

Some evangelicals have been deceived into signing statements on global warming. That is not surprising when we consider how many are courting favor with the world. And since so many are deceived on the level of special revelation (they teach false doctrine) we cannot be surprised that these same people are misled about general revelation as well. Believing falsehood is always harmful, whatever falsehood it is.

That brings us to the concluding points of this review. If, for the sake of argument, we were to grant that human-produced CO_2 will be the cause of cataclysmic events, then we had better get right with God because we cannot live without creating CO_2. I say that based on Jesus' comment regarding people killed by a disaster. He said: "*unless you repent, you will all likewise perish*" (**Luke 13:5b**). I agree that the planet faces a disaster, but the disaster of which I speak is far worse than any effects of the supposed human-caused climate change. The disaster is God's wrath against sin. And we have an antidote**.** We have the gospel.

The eco-alarmists of the world see the human population as the main threat to the environment. But as Christians we must submit to the truth of the Bible: "*God blessed them; and God said to them, 'Be fruitful and multiply, and fill the earth, and subdue it; and rule over the fish of the sea and over the birds of the sky and over every living thing that moves on the earth'*" (**Genesis 1:28**). God repeated this command to Noah after the flood: "*As for you, be fruitful and multiply; Populate the earth abundantly and multiply in it*" (**Genesis 9:7**). Apparently God was not concerned about CO_2. He was concerned about the people.

The global warming religion is about redefining sin. It is about man, rather than God, defining what is and is not "sin." It is also about offering false "redemption" by purposely impoverishing the entire human race. We should not get sidetracked. The real issue is God's wrath against sin (as He defines it) and where we shall spend eternity. Our only hope is through the finished work of Christ. Christians have the answer to the ultimate "global warming," which will happen when God judges the earth with fire (2Peter 3:10; Revelation 16:8). The single global warming-related issue we should concern ourselves with is telling a sinful world of God's impending judgment unless it repents of its rebellion against Him and obeys the One who has been resurrected to be King and Lord.

End Notes

1. His essay, "Global Warming: Why Evangelicals Should Not be Alarmed" is available on the Cornwall Alliance Web site: http://www.cornwallalliance.org/articles/read/global-warming-why-evangelicals-should-not-be-alarmed/
2. http://www.christianworldviewnetwork.com/article.php/2679/Bob_DeWaay
3. Christopher Essex and Ross McKitrick, *Taken by Storm – The Troubled Science, Policy, and Politics of Global Warming* (Toronto: Key Porter, 2002) revised edition 2007. The rest of this paper will use bracketed page references to this book.
4. Here I must explain that I studied chemical engineering at Iowa State University before I was converted. I studied differential calculus, dynamics in fluid systems, and quantum mechanics which uses differential calculus. I also studied thermodynamics. This helped me understand the material in the book I am reviewing.
5. http://www.homeharvest.com/carbondioxideenrichment.htm
6. http://news.nationalgeographic.com/news/2007/02/070228-mars-warming.html

Critical Issues Commentary

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