Global warming and 'climate change'—recent developments and guidelines for discernment

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An increasing number of evangelical Christian leaders have publicly stated that combatting 'global warming' or 'climate change' is a moral imperative. Likewise, Pope Francis recently called for action on this issue in a recent encyclical letter. However, at the same time, some scientists and environmental activists have become quite skeptical of alarmism on this issue, including former president of Greenpeace Canada Patrick Moore, physicist Freeman Dyson, and emeritus MIT professor of meteorology Richard Lindzen. 3-5

Creation perspectives

Creation Ministries International, this journal's publisher, does not have an 'official' position on this issue, stating that this is a 'wisdom issue' on which Christians can reasonably disagree.6 Likewise, creation scientists have generally been quite cautious on this issue. Physicist Russell Humphreys has argued that recent warming has occurred, but that it is not a reason for panic and that higher atmospheric carbon dioxide levels likely contributed to abundant vegetation in the pre-Flood world.7 Likewise, creation scientist (and former meteorologist for the National Weather Service) Michael Oard has stated that a small amount of warming has occurred, but that most of the warming is probably due to natural climate variations.8 And atmospheric

scientist (and former researcher at the Institute for Creation Research) Larry Vardiman did his own independent analysis of three different data sets and concluded that global warming had probably been occurring for the last 30–50 years.⁹

Of course, the fact that warming has occurred does not necessarily mean that it will continue, nor does it necessarily imply that human activity is responsible, as Vardiman was quick to point out.

The controversy—recent developments

Much of the concern over 'global warming' or 'climate change' results from computer models that predict continued increases in global surface temperatures as a result of increasing atmospheric carbon dioxide. However, one obvious problem with such predictions is that these computer models have failed to predict an apparent lengthy 'pause' or 'hiatus' (figure 1) in this warming trend: from 1998-2012, for instance, the warming trend was only one third to one half that of the warming trend for 1951-2012.10 Some have argued that the pause was due to warming of the Pacific and Indian Oceans.11 A paper published in Science in the summer of 2015, authored primarily by NOAA (National Oceanic and Atmospheric Administration, United States) scientists, however, argues that 'improvements' in the earth's surface observational temperature record show that this apparent pause is not real.¹²

This claim has already been challenged,¹³ and many were quite suspicious of this revision to the temperature data that retroactively 'erased' the pause. Congressman Lamar Smith, head of the House of Representatives Committee on Science, Space, and Technology, has requested that NOAA hand over internal communications that are relevant to the temperature revision,

but NOAA has refused, arguing that to do so would undermine the scientific process.¹⁴

Likewise, Georgia Institute of Technology climatologist Judith Curry wrote an editorial that broached the possibility of possible coordination between NOAA scientists and politicians eager to take aggressive action to fight climate change.15 The fact that a prominent climate scientist would be willing to seriously entertain such a possibility in a public forum is quite telling. NOAA issued a press release stating the 'death' of the pause just as the United States Environmental Protection Agency (EPA) was preparing to issue a 'Clean Power Plan' designed to reduce carbon emissions by existing power plants.¹⁶ Likewise, the press release occurred a couple of months before the 2015 United Nations Climate Change Conference (COP 21) was scheduled to begin in Paris, France.¹⁷ Furthermore, Curry had already noted that if the pause were to continue for twenty years or more, a pause not predicted by any climate models, then this would raise serious questions about the adequacy of those climate models.¹⁸ Hence, this paper's publication was, in multiple ways, very fortuitous (perhaps suspiciously so) for the 'warmist' side of this debate.

Nor is this the first instance in which suspicions of data manipulation have been aired. The well-known 'hockey stick' graph19 of Penn State climatologist Michael Mann (a modified version of it appeared in the movie AnInconvenient Truth) has been roundly criticized by other researchers, most notably Canadian researchers Stephen McIntyre and Ross McKitrick. 20-22 A summary of their criticisms is cringe-inducing: "collation errors, unjustifiable truncation or extrapolation of source data, obsolete data, geographical location errors, incorrect calculation of principal components and other quality control defects."20 Worse yet, McIntyre and McKitrick have presented evidence that Mann

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was aware that his analysis was problematic but that he failed to disclose this.²³ Their arguments have persuaded a number of high-profile scientists, including Nobel Prizewinning physicist Richard Muller, that the famous 'hockey stick' was deeply flawed ²⁴

So what is a conscientious Christian supposed to do? How does one discern the truth in this matter? Was the pause real, or not? Is warming within the last half of the 20th century truly unprecedented, and, if so, what, if anything, should be done about it? The study of climate is a complicated and specialized field, and it is difficult for scientists, especially if not directly involved in this subdiscipline, to understand all the details and nuances of these issues. Having a biblical worldview is essential for both laypeople and scientists when attempting to navigate such complex topics.

Principles for discernment

CMI has previously outlined some principles to bear in mind when pondering this issue, and here I put forth some other considerations:⁶

Indications of extreme bias

While all scientists have biases (included creation scientists), there is such a thing as extreme bias. Are there reasons to question the objectivity of those pushing for draconian action to fight 'climate change'? James Hansen, former director of the Goddard Institute for Space Studies, has been arrested (!) at least four times in climate-related protests.²⁵ He has also stated that coal is the "single greatest threat to civilization and all life on our planet" and that "trains carrying coal to power plants are death trains". 26 Such over-the-top rhetoric is an indication of extreme bias, of zealotry out of keeping with objective analysis.

Failed predictions

Have those claiming dire consequences of global warming made previous predictions that have not come to pass? Failure of past predictions is a good reason to view current 'doomsday' predictions with skepticism.²⁷

Underlying assumptions

Are there implicit unbiblical assumptions behind a particular conclusion? For instance, Vardiman has long noted a subtle connection between climate change alarmism and a denial of biblical history. Most secular scientists accept the Milankovitch (astronomical) hypothesis of Pleistocene ice ages, but they also realize that the changes in seasonal and latitudinal sunlight distribution resulting from variations in Earth's orbital and rotational motions are too small to, themselves, be the sole cause of an ice age. Hence, they believe that a small 'push' from other factors, such as the amount of carbon dioxide in the atmosphere, amount of sea ice, etc., can amplify these small changes, resulting in catastrophic climate

change.²⁸ They fail to recognize that the Ice Age was caused by a large 'push' from a never-to-be-repeated event, the Genesis Flood. Likewise, because of their 'deep time' interpretation of ice core data, uniformitarians believe that oxygen isotope ratios in deep ice cores are indicative of rapid climate fluctuations during a supposed previous warm period called an interglacial. Because uniformitarians believe that 'the present is the key to the past', and because they believe that we are now in another interglacial. they think that these dramatic climate changes could also occur today.29 However, they fail to recognize that the climate after the Flood was a unique, transitional, climate. Hence it is invalid to extrapolate such presumed past climate changes into the present.

Testing the 'fruit'

The Lord Jesus told us that we could test the fruits of a person or teacher: "For a good tree does not bear bad fruit, nor does a bad tree bear good fruit. For every tree is known by its own fruit. For men do not gather

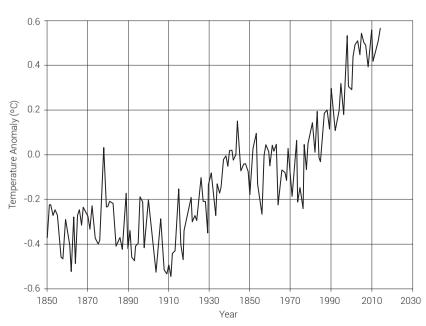


Figure 1. Yearly global surface temperature anomalies (in °C) from the 1961–1990 global average. Note the apparent 'levelling off' of the rate of warming from 1998 to 2013. Data source: Met Office Hadley Centre observations dataset.³³

figs from thorns, nor do they gather grapes from a bramble bush" (Luke 6:43-44, NKJV). This obviously can be applied to intellectual movements or ideologies, as well.30 There are many indications that climate change alarmism is bearing bad fruit. An article in Nature actually suggested that tens of millions of acres of fallow farmland should remain uncultivated in order to fight climate change.31 Given the number of hungry people in the world, it is shocking that some would seriously contemplate such action. So secular academics are now entertaining restrictions, not just on automobile fuel efficiency, energy consumption, etc., but on the amount of *food* that we produce! Likewise, one secular 'intellectual' has proposed modifying the human body in order to fight climate change.32 These examples of bad fruit are indicative of something fundamentally wrong with the 'warmist' movement.

Obviously, we should be willing to modify our positions as new information comes to light. I personally have tried to keep an open mind on this issue, but factors such as those above cause me to be extremely skeptical of alarmism over this issue and to be concerned that some Christians (not to mention policy makers) are accepting claims that may not be scientifically justified.

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