Global Warming?

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The Built-in Nonsense Detector:

Hardly a day goes by without a news article in the paper containing a reference to someone's opinion about "Global Warming". A quick search of the Internet uncovers literally hundreds of items about "Global Warming". Issues of atmospheric science journals will normally have at least one article on climatic change, usually meaning "Global Warming" or some aspect thereof. Whole generations of graduate students have been trained to believe that we know the main answers about climate change and only have to work out the details. Why then do I bother you by introducing this section with such a ludicrous title?

I do it because, as one who has spent many decades studying the subject professionally, I find that there are enormous gaps in the understanding of those making the most strident claims about climatic change. In order to read the news rationally,the educated reader needs a few keys to quickly sort the patently absurd from the possibly correct. I propose to supply some of those keys to give the reader at least a rudimentary nonsense detector.

Some Common Fallacies

1. The atmospheric warming of the last century is unprecedented and unique. Wrong. There are literally thousands of papers in the scientific literature with data that shows that the climate has been changing one way or the other for at least a million years.

2. It is a fact that the warming of the past century was anthropogenic in origin, i.e. man-made and due to carbon dioxide emission. Wrong. That is a theory for which there is no credible proof. There are a number of causes of climatic change, and until all causes other than carbon dioxide increase are ruled out, we cannot attribute the change to carbon dioxide alone.

3. The most important gas with a "greenhouse" effect is carbon dioxide. Wrong. Water vapor is at least 100 times as effective as carbon dioxide, so small variations in water vapor are more important than large changes in carbon dioxide.

4. One cannot argue with the computer models that predict the effect of a doubling of carbon dioxide or other "greenhouse gasses". Wrong. To show this we must show that the computer

models can at least duplicate the present-day climate. This they cannot do with what could be called accuracy by any stretch of the imagination. There are studies that show that the range error in modeling present precipitation is on the order of 100%, and the error in modeling present temperature is about the same size as the predicted change due to a doubling of carbon dioxide. For many areas the precipitation error is 300-400 percent.

5. I am arguing that the carbon dioxide measurements are poorly done. Wrong. The measurements are well done, but the interpretation of them is often less than acceptably scientific.

6. . It is the consensus of scientists in general that carbon dioxide induced warming of the climate is a fact. Probably wrong. I know of no vote having been taken, and know that if such a vote were taken of those who are most vocal about the matter, it would include a significant fraction of people who do not know enough about climate to have a significant opinion. Taking a vote is a risky way to discover scientific truth.

So What Can We Say about Global Warming? We can say that the Earth has most probably warmed in the past century. We cannot say what part of that warming was due to mankind's addition of "greenhouse gases" until we consider the other possible factors, such as aerosols. The aerosol content of the atmosphere was measured during the past century, but to my knowledge this data was never used. We can say that the question of anthropogenic modification of the climate is an important question -- too important to ignore. However, it has now become a media free-for-all and a political issue more than a scientific problem. What a change from 1968 when I gave a paper at a national scientific meeting and was laughed at for suggesting that people could possibly change the climate! (2)

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2. Bryson, R. A. and W. M. Wendland, 1968: "Climatic Effects of Atmospheric Pollution," in Proceedings of AAAS Annual Meeting, Global Effects of Environmental Pollution (Singer, ed.), pp. 130-138, Dallas, Texas, December 26-31, 1968. Also as "Climatic Effects of Atmospheric Pollution," S. Fred Singer (ed.), 1970; The Changing Global Environment, pp. 139-147, 1975.

Additonal Comments from Professor Leonid B. Klyashtorin of the Federal Institute for Fisheries and Oceanography, Moscow, Russian Federation:

The main greenhouse gas is water vapor. Approximately mean annual hemisphere concentration roughly is about 1.5%.(according of mean annual hemispheric temperature around 15 degr. C), CO2 concentration is 0.03% and for the last 50 year it increase by 20-30%.

Today's CO2 concentration is about 0.036-0.039 i.e. around 0.037%/
Total change of greenhouse effect for the last 50 year is from 1.53% to 1.537% i.e . by 0.45%.
This value is on the level of statistical error.