

Comments on the
Third U.S. Climate Action Report (CAR)

By

The Environmental Protection Agency

Michael R. Fox Ph.D.

December 10, 2001

A quick review of portions of the Draft Climate Action Report 2001 was made. These included Chapter 1, Introduction and Overview, Chapter 9, Education, Training, and Public Awareness, Appendices A and B.

Comment 1. I was depressed and disheartened by the overall superficiality of the document, the absence of rigorous science, of cause and effect, the total emphasis on man-made greenhouse gases (with little mention of the larger contributions of natural greenhouse gases (water being the most prominent)).

Comment 2. In Chapter 1 President Bush is quoted as saying that we have a problem which has “the potential to impact every corner of the world”. I disagree with the message of this skillfully crafted sentence, which with the word “potential”, is meaningless. “The potential NOT to impact every corner of the world” is equally plausible and equally meaningless.

Comment 3. Chapter 1 also makes mention of the billions to be spent by the U.S. around the world to dozens of nations, many already dependent for years upon American largesse. Little is recognized in the document of the economic windfall to these nations (actually to their thuggish leaders) who stand to receive billions if the US can be “linked” (love that scientifically meaningless word) to all sorts of doom and gloom and dubious consequences of global warming.

Comment 4. Nearly every paragraph of the CAR represents a genuflection to the Beltway greens and their 30 year war on American electrical energy systems. Mention is made of needed greater strictures on the use of electrical energy, leaving the continuing impression that American use of electrical energy is somehow immoral.

Comment 5. No mention is made of the fact that the US is already the most energy efficient nation in the world, according to Bruce Bartlett, of the National Center for Policy Research. The US requires 76 tons of oil equivalent (TOE) per \$1 million of Gross Domestic product (GDP). Japan requires 89, Italy requires 110, Germany 113, France 114, and the UK 117. Since the economies of the EU nations are much more wasteful in their use of energy, it is little wonder why the EU wants the US to sign the Kyoto Protocols (KP), when they don't sign it themselves. The KP is an economy killer and the EU knows it.

Comment 6. Certain key words are slipped into Chapter 1, such as the need to be “science-based” in global warming considerations. In a better world these words would be welcome, of course, except that inside the Beltway the term “science-based” has been bastardized to mean just about anything that the lawyers, bureaucrats, the green lobby, and Congress want it to mean. More science rigor is obviously needed, including a respect (and demand for) for simple cause-and-effect relationships.

Comment 7. The EPA itself has been a major defiler of the term “science-based”, and has a long and depressing history of junkscience. On a number of occasions the EPA has ignored its own Scientific Advisory Boards on science matters. Poor science has been practiced throughout the entire history of the EPA starting with the ban on DDT shortly after the formation of the EPA.

Comment 8. Has anyone at the EPA been able yet to locate the 9000 pages of testimony during the EPA DDT hearings in 1971-1972? I grew tired (and suspicious) from asking for EPA help in finding the documents. I am told that the first EPA administrator William D. Ruckelshaus did not read a single one of the 9000 pages before banning DDT. This was counter to the advice of his appointed judge for the hearings, Edmond Sweeney who recommended against the ban.

Comment 9. Has anyone at the EPA ever asked why there are (at last count) 11 different EPA regulations controlling radiation exposures to humans? Given that such regulations should address one source of harm, radiation, towards one target, humans, would give pause to more reasonable people. None of these 11 dose limits agrees with any other, nor do they seem to be supportable by any valid underlying science.

Comment 10. Science is not determined by votes, consensus, or clever debate tricks. It is a simple process of proposing hypotheses, testing the hypotheses by observation and collection of data, the replications of the data in further testing, appropriate statistical interpretation of the data, understanding the limits of the hypothesis. Galileo was a minority voice in his time, but he was right about the moons of Jupiter, and suffered mightily for it at the hands of the arrogant leadership at the time.

Comment 11. Good science requires extraordinary scientific knowledge, considerable humility, and the consideration of other interpretations of the data. These attributes are unheard of (or repressed) in many bureaucracies and government bodies, and seemed absent in the draft CAR.

Comment 12. Another statement is made that "greenhouse gases are accumulating in the Earth's atmosphere as a result of human activity, causing global mean surface temperature and subsurface ocean temperatures to rise". That greenhouse gases are increasing in the Northern hemisphere is true, and is about the only point that is uncontested. The rest of the statement above is probably false, and certainly is unknowable at this time, and unsupported by the existing body of science.

Comment 13. In several periods over the past 20,000 years or so have shown both periods of increasing atmospheric CO₂ and increasing temperature. The data show that in a number of cases the temperature increases PRECEDED the increases in atmospheric CO₂ by several centuries! This raises the real possibility that the temperature increases CAUSED the increases in CO₂, not the reverse. This is the exact opposite of prevailing Beltway dogma.

Comment 14. Chapter 1 also contains the statement that "several classes of halogenated substances that contain fluorine, chlorine, and bromine are also greenhouse gases, but they are, for the most part, solely a product of industrial activity." The statement is spectacularly incorrect. As of Dec. 1997, Dr. Gordon Gribble and others have identified 2900 naturally occurring organo-halogen compounds (Accounts of Chemical Research, Vol. 31, No. 3, 1998, also The Natural Production of Chlorinated Compounds, Gordon Gribble, Env. Science and Technology, Vol. 28, No. 7, 1994, p. 310A, ff). This list of naturally occurring halogenated compounds has increased 250-fold in 40 years suggesting that the list will grow much longer.

Comment 15. For example (from the ES&T article cited above), chloro-methane is produced naturally from many sources including marine algae, wood-rotting fungus, giant kelp, the ice plant, cultivated mushrooms, the pencil cedar, the evergreen cypress, several fomes, fungi, and phytoplankton.

Comment 16. Further, since chloride ion is normally present in plants, their combustion naturally leads to the formation of organo-chlorine compounds. Thus, forest fires, brush and vegetation burning, volcanoes produce large and sometimes massive amounts of chloro-methane.

Comment 17. The global emission rate of chloro-methane from marine and terrestrial biomass, is estimated to be 5 million tons per year, whereas, anthropogenic chloro-methane emissions are estimated to be only 26,000 tons per year (from the ES&T article above).

Comment 18. Gribble's paper also contain a list of more than 30 other simple haloalkanes (mostly methane based)

Comment 19. Given these huge omissions from the CAR by EPA, what is the public to think about its own agencies, their expertise, their agency's agendas, their selective omissions, and what passes for "science-based" work inside the beltway. Worse, in e:mails with Dr. Gribble I found that he is unwelcome at the EPA. Incredible. That makes me suspicious.

Comment 20. Further the short discussion of CFCs causing ozone holes is hopelessly inadequate. No mention is made of the natural sources of chlorine and associated compounds (see discussion above comments 15-18), of the more than 1000 tons per day of Cl₂ emissions from Mt. Erebus in Antarctica, and why this source of Cl₂ isn't involved as a source of atmospheric ozone depleting Cl₂. I am familiar with aspects of atmospheric chemistry, and recognize that ozone formation and depletion, which requires chlorine as a catalyst, does not recognize the sources of the chlorine. Yet the CAR focuses only on man-made sources, for reasons unscientific.

Comment 21. I have personally witnessed clouds of salt water sea spray extending to 10,000 feet or more on the North Shore of Hawaii. With such a process taking place in the oceans around the world, only a tiny fraction of millions of tons of sea water need get to the stratosphere to catalyze the ozone formation and depletion processes. (I am also familiar with air cleaning processes such as scrubbers, venturi scrubbers and others, and know for certain that none are 100% efficient at removal of such materials). Given the sheer mass of sea spray lifted annually into the atmosphere, it seems highly likely (even at 99% efficiency removal rates that the seas are a significant source of stratospheric chlorine. Obviously hurricanes would lift millions of tons of chlorine-bearing sea water, too, into the atmosphere.

Comment 22. Obviously the scientific case for man-made sources of halogen compounds being the sole reason for ozone depletion has not been made, in spite of the hysteria. It is still not obvious that the stratospheric ozone concentrations which cycle up and down annually, aren't simply a natural process which has taken place for millions of years.

Comment 23. This comment does not bear directly on the CAR, but it does bear upon the ozone issue, and it bears upon the questionable approaches to science inside the Beltway and to the scientific integrity of the interest groups, agencies, there. Obviously, it gives me pause as to the meaning of the term "science-based", as used by these people.

As is described in detail in Physics Today, June, 1993, p. 89ff, Dr. William Happer, at the time the director of energy research at the Department of Energy was dismissed from his post after opposing the prevailing views of Al Gore and his environmental aides on the issues of ozone depletion. Happer was not your run-of-the-mill appointees, but a former physics professor at Princeton University with impressive credentials. Happer was an honest scientist in a sea of green apocalyptics who surrounded Gore. He did not share this vision and his views ran counter to the many of the claims of Gore as found in his book, "Earth in the Balance".

Happer proposed a UV monitoring program to measure the ground levels of UV radiation around the US. The existing data at the time did not support the hysterical stories of increased UV at the Earth's surface, the skin cancer stories, the sheep going blind, etc. Happer simply proposed to get more and better ground-level UV data to resolve the scare stories. He was subsequently told that his services were no longer needed.

When solid scientists can be fired for attempting to use sound science in resolving scientific uncertainties inside the Beltway, many of us are truly dismayed and frightened. Salem witch trials come to mind. In other words terms like "sound science" or "science-based" ring hollow when asserted by denizens of the Beltway. Many of us know differently.

Comment 24. I also share the views of other scientists on the global warming issue as below discussed recently in a briefing at the Austrian Parliament Austrian:

It was organized by Prof. Anton Preisinger and attended by about 20 scientists.

The Briefing stressed the following points:<?xml:namespace prefix = o ns = "urn:schemas-microsoft-com:office:office" />

1. The historic climate is highly variable and never stable.
2. Past climate variations are generally not controlled by changes in atmospheric greenhouse gas levels but by other factors, such as solar variability.
3. Climate variations since the last glacial maximum of 18,000 years ago show a major warming during the period 8000 to 5000 years ago ("Holocene Climate Optimum"), a strong warming around 1000 AD ("Medieval Climate Optimum"), and a warming from about 1850 to 1940 (recovery from "Little Ice Age").
4. The observational evidence from weather satellites, weather balloons, and "proxy" data (from tree rings, ice cores, etc.) shows no detectable warming trend since 1940. (Contradictory surface temperature data may be contaminated).
5. Theoretical climate models used to project large future increases in global temperature have never been validated by actual data. As is well recognized, they are unable (so far) to simulate many important atmospheric processes.
6. The proposed Kyoto Protocol to reduce emissions of carbon dioxide and other greenhouse gases is extremely expensive. It is also ineffective and not needed. A modest warming, should it occur, would be generally beneficial. Finally, as agriculturalists well know, carbon dioxide promotes the growth of crops and forests and is therefore a resource.

Comment 25. Chapter 9, Education, Training, and Awareness, is so void of substantial information so superficial, so averse to discussing other valid points of view, that it could have been written by Greenpeace or the Sierra Club. How can anything be considered educational if the effort starts with incorrect assumptions, that global warming can be remedied with hopelessly inadequate restrictions on man's energy use, that it can be modeled with hopelessly inadequate computers, let alone hopelessly inadequate knowledge of the climate systems. This is not education. How can anything be educational which omits considering the findings of hundreds of scientific literature sources which do not support the theory of man-made global warming. The CAR promotes a program of advocacy, propaganda, and brainwashing. It is also harmful and inappropriate.

Let me know if I can help.

Regards

Michael R. Fox Ph.D.

