

The ethics (or lack thereof?) of human-caused climate warming

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In 2001, the IPCC's Third Assessment Report showed substantial increases in the collective confidence concerning the reality of human-caused climate warming. In response, leading governments, technologists, and scientists have begun to focus their attention on this this problem more seriously, the most notable exceptions being the USA and Australia. However, virtually no countries have yet made even a significant dent toward dealing with the real magnitude of this fundamentally global problem that now confronts us all.

Most of the observed global warming over the 20th century has been attributed to increased atmospheric concentrations of CO₂ and other greenhouse gases. Further warming, however, will continue to lag behind these increased greenhouse gas concentrations by decades to centuries. This is due to the delayed warming, being caused by the very high heat capacity of the global ocean, for decades to centuries. In effect, we are on a trajectory to pass many of the major consequences

of our global inaction to multiple generations, yet unborn.

Collectively, these and other mega-challenges have already virtually guaranteed what I have called "THE GLOBAL WARMING DILEMMA". This dilemma contains multiple challenges that lie well beyond improving our understanding of climate science and potential new energy technologies. These daunting challenges are inevitably accompanied by a number of global-scale "values conflicts" that have yet barely touched the collective consciousness of earth's current living generations.

These values conflicts, and their profound implications, will be highlighted in the talk.

Biography

Jerry Mahlman received an AB in Physics and Mathematics from Chadron State College, and an MSc and PhD in Atmospheric Sciences at Colorado State University. After a 3-year stay in the Meteorology Department of the US Naval Postgraduate School in California, in 1970 he accepted a Senior

Research Scientist position at NOAA's Geophysical Fluid Dynamics Laboratory (GFDL) at Princeton University. While at GFDL, he led the development of pioneering mathematical models of the transport of chemicals in the global atmosphere, and of the circulation of the stratosphere. Those models are still heavily utilised today to address global air pollution questions, as well as a variety of problems relating to stratospheric ozone depletion and its interaction with the global warming problem.

In 1984, he was appointed as the Director of GFDL and he became immersed in the interpretation of the science behind many of the public policy questions relating to stratospheric ozone depletion and to human-caused climate warming. In 2000, he retired from GFDL and NOAA. Currently, he holds a part-time Senior Research Associate position at the National Center for Atmospheric Research in Boulder, CO., and as a Consultant to the Pew Center on Global Climate Change in Washington, DC.