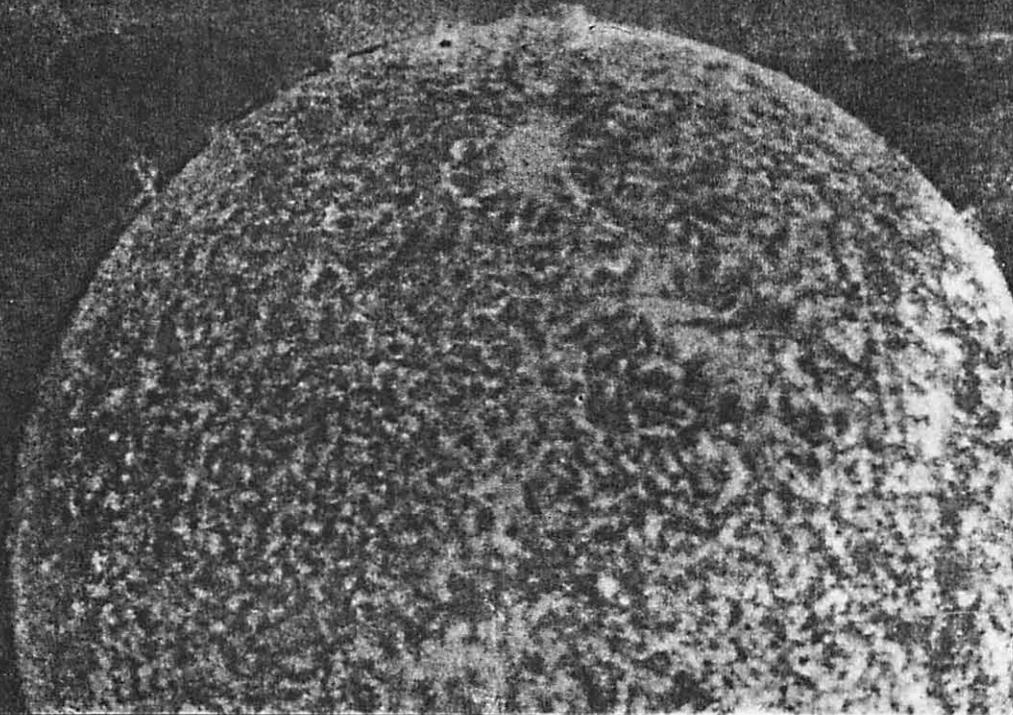


# **GLOBAL WARMING**

**THE TRUTH BEHIND THE MYTH**

**Michael L. Parsons**



**GLOBAL WARMING**  
**The Truth behind the Myth**  
**MICHAEL L. PARSONS**

"... fills the need for a balanced presentation of the science and the policy implications of the greenhouse warming issue. It is authoritative, backed by solid data and references, yet presented in a clear and simple manner. With climate change at the top of the international environmental agenda, it is vital that every citizen learn to distinguish reality from hype. The author explains what goes into the forecasts that have captured the media's imagination in the past few years—from the intricacies of climate models to the operation of the sun."

—S. Fred Singer, Ph.D., President, Science & Environmental Policy Project, Fairfax, Virginia

"Dr. Parsons examines the risk of global warming caused by human actions. He thoroughly discusses measurements of climate simulations of the earth's climate. Parsons covers an extraordinary breadth of topics in order to show that the fears of catastrophic global warming are not well grounded. His clear and precise language make the subject accessible to everyone concerned about the environment."

—Sallie Baliunas, Ph.D., Astrophysicist, Harvard-Smithsonian Center for Astrophysics, Cambridge, Massachusetts

"... a well written, extensively researched and documented analysis of today's premiere environmental concern. After a careful examination of the facts, Dr. Parsons puts the issues surrounding carbon emissions and global warming into perspective. The book is a call for reason and responsible action when dealing with a complex, poorly understood subject, and should be read by everyone."

—Richard D. Foust, Jr., Ph.D., Professor of Chemistry and Environmental Science, Northern Arizona University, Flagstaff, Arizona

*Cover photograph: Spectroheliogram, taken by NASA's Skylab, shows a tremendous solar eruption, an example of the sun's ongoing turbulent activity.*

*Cover design by Susanne Van Duyne*



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## GLOBAL WARMING The Truth behind the Myth MICHAEL L. PARSONS

"Global warming has begun!" proclaim countless headlines, warning of the dire consequences of humanity's wasteful burning of fossil fuels. The global warming theory, based primarily on the predictions of computer climate models, has been accepted as truth by a large segment of society. What is the basis for the theory of global warming? Is global warming indeed a peril to humanity, or is the scare an overreaction to scientific speculation? Do the scientific facts support the political position that greenhouse gas emissions caused by human activities constitute a problem that warrants global action?

*Global Warming: The Truth behind the Myth* is a provocative discussion of the relationship between global climate and the greenhouse effect. Dr. Michael Parsons, an esteemed scientist and writer in the area of atomic spectroscopy and environmental analysis, uses the term "myth" to capture the essence of the misunderstanding and exaggeration behind the popular view of global warming. The author explains the computer models that are used to predict climate change, points out their flaws, and offers insight into the views and opinions of the computer modelers themselves. Dr. Parsons examines the hysteria generated by the overreaction to scientific speculation, which is perpetuated by environmental activists and the media, resulting in wide, ranging and perhaps misguided governmental policy.

While there is no question that the greenhouse phenomenon exists, there are many uncertainties about computer predictions and the assumptions used in the computer models. Important factors such as solar variation, El Niño, cloud dynamics, and ocean currents significantly influence the earth's climate, and yet most computer models have neglected to adequately incorporate them. In addition, there are other natural forces at work that could have far greater and perhaps opposing effects on the climate.

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*Global Warming* is not an anti-environmental book. Rather, it is an authoritative attempt to put the facts associated with global climate into proper perspective along with other environmental problems, such as overpopulation, depletion of nonrenewable energy resources, and pollution. Dr. Parsons presents the scientific facts on both sides of the various issues and documents them so that the reader will be able to come to an intelligent, unbiased opinion. Written primarily for the general public, this intriguing book will also be enlightening for teachers and students, politicians, agricultural economists, environmental engineers and geologists, climatologists, conservationists, public health officials, policymakers, and scientists in general.



**Michael L. Parsons, Ph.D.**, earned his degree in chemistry from the University of Florida before joining the faculty at Arizona State University. He has published nearly 100 scientific papers and four scientific books, and also has government laboratory and industrial credentials, having spent four years at Los Alamos National Laboratory, followed by five years in aerospace research and development. Dr. Parsons is now Professor and Chair of the Department of Health Science at West Coast University in Los Angeles, California. He and his wife, Ginger, reside in San Dimas, California.

## Foreword

The noted political scientist Aaron Wildavsky once termed global warming the "mother of all environmental scares." A phenomenon that may not even be detectable has been linked to all sorts of calamities: collapse of the Antarctic ice sheet, worldwide flooding due to rising ocean levels, disastrous hurricanes, droughts and agricultural disasters, mass starvation, and the spread of tropical diseases putting three billion people at risk. These disasters are not grounded in fact, of course, but spring from the feverish imagination of activists and their ideological desire to impose controls on energy use and to stop—or at least micromanage—economic growth.

With climate change at the top of the international environmental agenda, it is vital that every citizen learn to distinguish reality from hype. This volume fills the need for a balanced presentation of the science and the policy implications of the greenhouse warming issue. It is authoritative, backed by solid data and references, yet presented in a clear and simple manner. The author explains what goes into the forecasts that have captured the media's imagination in the past few years—from the intricacies of climate models to the operation of the sun.

The fearmongers beating the drums have falsely claimed that there is a "scientific consensus" supporting their scenarios: the opposite is more nearly true. The case against panicky policy actions—be they punitive taxes on energy use or more direct control measures—can be encapsulated in three points:

- The model calculations that predict a major warming in the next century have so far not been validated by actual observations of the climate over the past century. More specifically, the precise data from weather satellites since 1979 show essentially zero increase in global average temperature—and, if stretched, at most only one-fifth of the “best” predicted increase.
- Based on solid historical evidence there is every reason to believe that a modest increase in temperature is beneficial for human existence on the planet. Further, most agriculturalists concur that the ongoing increase in atmospheric carbon dioxide will speed up plant growth. What we should fear most is the inevitable return of the next ice age—now overdue.
- Finally, even if greenhouse warming were really here and even if it were as “bad” as hyped, what could realistically be done about it? Most of the world’s population lives in developing countries anxious to improve their standard of living, eager to have refrigerators, air conditioners, and cars. Can we deny them their aspirations, while at the same time forbidding the use of nuclear energy, which does not release carbon dioxide into the atmosphere? And what about other greenhouse gases, like methane from rice growing and cattle raising? Stabilization of the *concentration* of atmospheric carbon dioxide requires more than the stabilization of *emissions*: it requires that emissions be cut by 60 to 80 percent—worldwide!

This is not a plea for complacency: any human-induced change in the environment must be carefully monitored and evaluated. In the meantime, common-sense, “no-regrets” policies, like energy conservation, rather than hasty actions based on insufficient science, are in order.

S. Fred Singer, Ph.D.  
*Director, Science & Environmental Policy Project*  
*Fairfax, Virginia*

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## Preface

Global warming has received much attention in the past few years in the news, popular magazines and books, the classroom, and on television information shows. Predictions from computer climate models have indicated the possibility of rapid warming of the earth and of serious consequences, such as rising sea levels, loss of biodiversity, and destruction of agriculture. Many exaggerations and false statements have been made about the extent of the warming, its causes, and its consequences, which have led to misunderstanding about the nature and extent of the problem. An entire set of beliefs has grown up around both the facts and the misconceptions and has become accepted as truth among the general public. This popular view has been perpetuated by the media, the educational system, the environmental movement, government, and some climate scientists.

We like to use the term "myth" to describe this view; Webster's Collegiate Dictionary defines myth as "a belief or set of beliefs, often unproven or false, that has accrued around a person, phenomenon, or institution."

Myths and mythology are important to society, helping us deal with the world and its complexities. Myths have developed in most cultures throughout history, and they have been based on both observation and speculation, on both experience and superstition. Many myths sought to explain natural forces in terms of

gods and goddesses. The ancient people of Hawaii explained the formation of their islands in the story of Pele, a petulant goddess who caused earthquakes and volcanic eruptions. The ancient Greeks attributed earthquakes to Poseidon, the god of the sea. And every culture has had a story of creation that sought to explain the origins of the earth and determine the role of humans in nature.

What is the basis for the myth of global warming? Is global warming a peril to humanity or is the myth a volatile overreaction to scientific speculation? Do the scientific facts support the position that greenhouse gas emissions caused by human activities constitute a problem that warrants global political action? While there is no question that there are greenhouse gases, and there is no question that the greenhouse phenomenon exists, there are many uncertainties about the assumptions used in the computer models that predict global warming. In addition, there are other natural forces at work on our planet that are probably far more important than greenhouse gases, often having an opposite effect on the climate.

This book will present a discussion of global climate and the greenhouse effect, the computer models that are used to predict global warming, the source and balance of the most important greenhouse gases, and the factors left out of the greenhouse models. It will discuss the hysteria generated by an overreaction to scientific speculation and the resulting governmental policy implications. This is not an anti-environment book. Rather, it will attempt to put the facts associated with global climate into proper perspective with other environmental problems, such as overpopulation, depletion of nonrenewable energy resources, and pollution. It will present the scientific facts on both sides of the various issues and document them so that you will be able to form an intelligent and unbiased opinion.

Michael Parsons

*San Dimas, California*

## Acknowledgments

It has always bothered me when people jump on a bandwagon without knowing where it is going. This seems to be the case with most environmental books; in particular, many authors choose to present evidence for only one side of the issue. In April of 1993, when my wife Ginger and I vacationed in Greece, for recreational reading I took along *Our Angry Earth* by Isaac Asimov and Frederik Pohl. I admire Asimov, but this book was one-sided, full of misstatements, exaggerations, and misconceptions, and I was outraged! I started the outline for *Global Warming: The Truth behind the Myth* on that trip.

My wife deserves to be acknowledged as a coauthor of this book and not hidden here in the acknowledgments. She helped research many areas of the book. She ruthlessly edited the entire manuscript, and wrote or rewrote significant portions. In addition, she kept me from writing a "technical" book, which is a tendency of mine because my writing career up until now has been largely scientific. She must have been happier than anyone that "February is finally here!" (February 1995 was the deadline for the manuscript.)

I am fortunate to live in Southern California with its wealth of libraries. I have made use of no less than thirteen of them. The patient librarians had no idea of my project, and I want to thank them for being there.

I also traveled down the "information superhighway" in preparing this book, using both DIALOG and CompuServe on-line

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computer services for finding articles that were not otherwise accessible. I even had a conversation with Tom, the "SOS" rescue computer-person at CompuServe—Thanks for the help, Tom!

Government agencies were also helpful. The DOE's Carbon Dioxide Information Analysis Center (CDIAC) at Oak Ridge National Laboratory supplied me with invaluable reports in a very timely manner. I particularly want to thank Ms. Laura Morris of CDIAC, who sent and even faxed important information when I requested it. NOAA's National Geophysical Data Center also supplied important data, and the U.S. Department of Agriculture and NASA were helpful as well.

I would like to thank several members of my family who read and made helpful comments on portions of the manuscript, including Guinn Sherlock, Erin and Fred Fugere, and Bill Thomas.

Finally, I thank Insight Books for taking on this project and editor Frank Darmstadt for his encouragement and guidance.

I hope that I have fairly presented the facts that are known on the issue of global warming and, most important of all, I hope that you learn and enjoy reading about this fascinating issue.

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