The Heartland Institute's Web feature on Michael Crichton's *State of Fear* www.heartland.org
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Michael Crichton Is Right!

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1. Welcome to the State of Fear Issue Suite

Michael Crichton's new book, *State of Fear* (Harper Collins, 2004, \$27.95), is a surprising book. Tucked inside a lively and entertaining tale of a philanthropist, a scientist, a lawyer, and two remarkable women who travel around the world trying to foil the plots of evil-doers is a detailed expose of the flawed science and exaggerations at the base of the global warming scare. It is also a devastating critique of mainstream environmentalism today and an eloquent call for change.

Like Crichton's previous block-busters, *The Andromeda Strain* and *Jurassic Park*, this new book blends science and fiction in ways that teach as well as entertain readers. Crichton, who earned an M.D. from Harvard University and has written several nonfiction books (click here for a **biography**), backs up his claims with footnotes, an appendix, and an annotated bibliography. Clearly, he wants the

science in his book to be taken seriously.

Which raises the question: How much of the science in *State of Fear* is accurate, and how much is fiction?

The answer: Michael Crichton is right! His synthesis of the science on climate change is extremely accurate and the experts he cites are real. The Heartland Institute has been participating in the debate over climate change for more than a decade, and we have worked with many of the experts listed in the book's bibliography.

This feature on The Heartland Institute's Web site is dedicated to following the debate over the science in *State of Fear*. It collects some of the many reviews, op-eds, and letters the book has generated and also links to research on environmental issues and the environmental movement.

2. Reviews and Reactions

State of Fear was number 3 on the New York Times best seller's list in early January 2005, and it is generating plenty of controversy. Here are some of the best reviews and commentaries we've seen and recommend:

- "A Chilling Tale: A Review of State of Fear by Michael Crichton," by Ron Bailey, Wall Street Journal, December 10, 2004
- "State of Fear Debunks Junk Science About Theories of Global Warming," by George Will, Washington Post, December 23, 2004 (nationally syndicated column)
- "Michael Crichton and the End of Radical Environmentalism," by Joseph Bast, the Heartland Institute, January 1, 2005
- "Conservatives Should Make Time To Read Michael Crichton's *State of Fear*," by Myron Ebell, Competitive Enterprise Institute, December 29, 2004
- "Michael Crichton Takes a Novel Approach to Global Warming," by Iain Murray, *National Review*, December 21, 2004
- "An Update on the Science of Climate Change," by Sen. James M. Inhofe, speech before the U.S. Senate Committee on Environment and Public Works citing *State of Fear*, January 4, 2005
- "Review of State of Fear by Michael Crichton," by S. Fred Singer, January 1, 2005
- **"The Green 'State of Fear,"** by syndicated columnist Suzanne Fields, *Washington Times*, February 3, 2005

3. What Crichton Says about Global Warming

Early in the book, Crichton has one of his characters define global warming as "the heating up of the earth from burning fossil fuels." (p. 80) Not so, says another character, who defines global warming as follows:

... global warming is the *theory* that increased levels of carbon dioxide and certain other gases are causing an increase in the average temperature of the earth's atmosphere because of the so-

called 'greenhouse effect.' (p. 81, italics in the original)

The second definition is correct. "Global warming" really is only a theory, not a fact, and the words Crichton chose to italicize are all key terms in the scientific debate over whether the theory is correct or not. Over the course of the book, other characters document the following flaws in the theory of global warming:

- most of the warming in the past century occurred before 1940, before CO2 emissions could have been a major factor (p. 84);
- temperatures fell between 1940 and 1970 even as CO2 levels increased (p. 86);
- temperature readings from reporting stations outside the U.S. are poorly maintained and staffed and probably inaccurate; those in the U.S., which are probably more accurate, show little or no warming trend (pp. 88-89);
- "full professors from MIT, Harvard, Columbia, Duke, Virginia, Colorado, UC Berkeley, and other prestigious schools ... the former president of the National Academy of Sciences ... will argue that global warming is at best unproven, and at worst pure fantasy" (p. 90);
- temperature sensors on satellites report much less warming in the upper atmosphere (which the theory of global warming predicts should warm first) than is reported by temperature sensors on the ground (p. 99);
- data from weather balloons agree with the satellites (p. 100);
- "No one can say for sure if global warming will result in more clouds, or fewer clouds," yet cloud cover plays a major role in global temperatures (p. 187);
- Antarctica "as a whole is getting colder, and the ice is getting thicker" (p. 193, sources listed on p. 194);
- The Ross Ice Shelf in Antarctica has been melting for the past 6,000 years (p. 195, p. 200-201); "Greenland *might* lose its ice pack in the next thousand years" (p. 363);
- The Intergovernmental Panel on Climate Change (IPCC) is "a huge group of bureaucrats and scientists under the thumb of bureaucrats," and its 1995 report was revised "after the scientists themselves had gone home" (p. 245-246);
- James Hansen's predictions of global warming during a Congressional committee hearing in 1988, which launched the global warming scare, were wrong by 300 percent (.35 degrees Celsius over the next 10 years versus the actual increase of .11 degrees); in 1998, Hansen said long-term predictions of climate are impossible (pp. 246-247);
- there has been no increase in extreme weather events (.e.g., floods, tornadoes, drought) over the past century or in the past 15 years; computer models used to forecast climate change do not predict more extreme weather (p. 362, 425-426);
- temperature readings taken by terrestrial reporting stations are rising because they are increasingly

surrounded by roads and buildings which hold heat, the "urban heat island" effect (p. 368-369); methods used to control for this effect fail to reduce temperatures enough to offset it (p. 369-376);

- changes in land use and urbanization may contribute more to changes in the average ground temperature than "global warming" caused by human emissions (p. 383, 388);
- temperature data are suspect because they have been adjusted and manipulated by scientists who *expect* to find a warming trend (p. 385-386);
- carbon dioxide has increased a mere 60 parts per million since 1957, a tiny change in the composition of the atmosphere (p. 387);
- increased levels of CO2 act a fertilizer, promoting plant growth and contributing to the shrinking of the Sahara desert (p. 421);
- the spread of malaria is unaffected by global warming (pp. 421-422, footnotes on 422);
- sufficient data exist to measure changes in mass for only 79 of the 160,000 glaciers in the world (p. 423);
- the icecap on Kilimanjaro has been melting since the 1800s, long before human emissions could have influenced the global climate, and satellites do not detect a warming trend in the region (p. 423);
- deforestation at the foot of the mountain is the likely explanation for the melting trend (p. 424);
- sea levels have been rising at the rate of 10 to 20 centimeters (four to eight inches) per hundred years for the past 6,000 years (p. 424);
- El Niños are global weather patterns unrelated to global warming and on balance tend to be beneficial by extending growing seasons and reducing the use of heating fuels (p. 426);
- the Kyoto Protocol would reduce temperatures by only 0.04 degrees Celsius in the year 2100 (p. 478);
- a report by scientists published in *Science* concludes "there is no known technology capable of reducing [global] carbon emissions ... totally new and undiscovered technology is required" (p. 479);
- change, not stability, is the defining characteristic of the global climate, with naturally occurring events (e.g., volcanic eruptions, earthquakes, tsunamis) much more likely to affect climate than anything humans do (p. 563); and
- computer simulations are not real-world data and cannot be relied on to produce reliable forecasts (p. 566).

One character in *State of Fear* concludes, "The threat of global warming is essentially nonexistent. Even if it were a real phenomenon, it would probably result in a net benefit to most of the world" (p. 407).

4. Crichton Is Right!

All of the points listed above are based on sound research by reputable authors. For confirmation, you can buy and read any of the following books:

Ronald Bailey (ed.), *Earth Report 2000: Revisiting the True State of the Planet*, 2000, chapter 2 and chapter 7.

Robert C. Balling, Jr., The Heated Debate: Greenhouse Predictions Versus Climate Reality, 1992.

Robert L. Bradley, Jr., Julian Simon and the Triumph of Energy Sustainability, 2000.

Robert Jastrow, William Nierenberg, and Freiderick Seitz, *Scientific Perspectives on the Greenhouse Problem*, 1990.

Jay H. Lehr (ed.), *Standard Handbook of Environmental Science, Health, and Technology*, 2000, chapter 22, section 1.

Jay H. Lehr (ed.), Rational Readings on Environmental Concerns, 1992.

Robert Mendelsohn and James E. Neumann (eds.), *The Impact of Climate Change on the United States Economy*, 1999.

Patrick J. Michaels, *Meltdown: The Predictable Distortion of Global Warming by Scientists*, *Politicians, and the Media*, 2004.

Patrick J. Michaels and Robert C. Balling, Jr., *The Satanic Gases: Clearing the Air about Global Warming*, 2000.

Thomas Gale Moore, Climate of Fear: Why We Shouldn't Worry about Global Warming, 1998.

Kendra Okonski (ed.), *Adapt or Die: The Science, Politics and Economics of Climate Change*, 2003.

Dixy Lee Ray with Lou Guzzo, *Environmental Overkill: Whatever Happened to Common Sense?*, 1993

- S. Fred Singer, Hot Talk, Cold Science: Global Warming's Unfinished Debate, 1997
- S. Fred Singer (ed.), Global Climate Change, 1989

Aaron Wildavsky, But Is it True? A Citizen's Guide to Environmental Health and Safety Issues, 1995.

S.H. Wittwer, Food, Climate and Carbon Dioxide, 1995.

Alternatively, you can read the much shorter three-part series on the science of global warming by scientists Jay H. Lehr and Richard S. Bennett that ran in 2003 in *Environment & Climate News*, a

monthly publication of The Heartland Institute.

- Part 1: A Climate Change Primer: It's the Sun
- Part 2: A Climate Change Primer: Solar and Orbital Variation
- Part 3: A Climate Change Primer: Computer Models and the Need for More Research

Another alternative is to go to The Heartland Institute's **home page** and click on the *PolicyBot* button. Choose "environment" from the list of topics that comes up, and then any one of the 10 subtopics on climate change. Each subtopic will present you with titles, authors, publication information, reviews, and links to dozens of recent studies and commentaries on every aspect of the global warming debate. All together, there are nearly 1,000 documents on global warming available through *PolicyBot*. The service is free.

5. Crichton on Other Environmental Issues

The characters in *State of Fear* also debate deforestation, endangered species, sustainable development, DDT, and many other hot environmental topics. Here are some highlights from those discussions:

- California's forests have continuously changed their composition--"each thousand-year period was different from the one before it"; Indians actively managed the changes with fire and agriculture (pp. 404-406);
- nobody knows how many species there are in the world, and estimates of extinction rates are simply expressions of opinion and not science (p. 422);
- silicon breast implants did not cause disease and power lines do not cause cancer (p. 456)
- mankind does not know how to manage ecosystems, as is demonstrated by the gross mismanagement of Yellowstone National Park (pp. 484-486);
- banning DDT was "arguably the greatest tragedy of the twentieth century" since DDT was a proven lifesaver that posed no threat to human health (p. 487-488); and
- the biggest cause of environmental destruction is poverty, not prosperity (p. 564);

6. Crichton Is Right Again!

Once again, Crichton is right on target on these environmental controversies. Books that back him up include those by Ronald Bailey, Jay H. Lehr, Dixy Lee Ray with Lou Guzzo, and Aaron Wildavsky in the list above, as well as the following:

Dennis T. Avery, Saving the Planet with Pesticides and Plastic, 1995.

John A. Baden (ed.), Environmental Gore: A Constructive Response to 'Earth in the Balance', 1994.

Joseph Bast, Peter .J. Hill, and Richard Rue, *Eco-Sanity: A Common-Sense Guide to Environmentalism*, 1995, rev. edition 1996.

Ben Bolch and Harold Lyons, Apocalypse Not: Science, Economics, and Environmentalism, 1993.

Alston Chase, In a Dark Wood: The Fight over Forests and the Myths of Nature, 2001.

Alston Chase, *Playing God in Yellowstone: The Destruction of America's First National Park*, 1986.

Thomas R. DeGregori, Bountiful Harvest: Technology, Food Safety, and the Environment, 2002.

Jack W. Dini, Challenging Environmental Mythology: Wrestling Zeus, 2003.

Gregg Easterbrook, A Moment on the Earth, 1995.

Michael Fumento, Science Under Siege, 1993.

Peter Huber, Hard Green: Saving the Environment from the Environmentalists, a Conservative Manifesto, 1999.

Björn Lomborg, The Skeptical Environmentalist, 2002.

Steven J. Milloy, Junk Science Judo: Self-Defense Against Health Scares and Scams, 2001.

Stephen Moore and Julian Simon, It's Getting Better all the Time, 2000.

Julian Morris (ed.), Sustainable Development: Promoting Progress or Perpetuating Poverty?, 2002.

Julian Simon, The State of Humanity, 1995.

Richard L. Stroup, *Eco-Nomics: What Everyone Should Know about Economics and the Environment*, 2003.

Reliable information on a wide range of environmental topics is available for free from *PolicyBot* on Heartland's Web site at **http://www.heartland.org**. Choose from more than 70 subtopics to easily find research and commentary on everything from air pollution and animal rights to water and wetlands.

7. Crichton on the Environmental Movement

Michael Crichton is also very critical of the environmental movement. In the fiction part of the book he has characters say the following:

- PETA, the animal rights group, funds ELF, an eco-terrorist group, and mainstream environmental groups may be funding them as well. "Frankly, it's a disgrace" (p. 182);
- environmentalists have used "media manipulation" and scare tactics as part of a "global warming

sales campaign" to raise money and acquire political influence (p. 245);

- environmentalists refuse to take into account the possible harms caused by the policies they
 recommend, with the result that they advocate spending billions of dollars to save a single
 hypothetical life (p. 488-489);
- environmentalism organizations today "have big buildings, big obligations, big staffs. They may trade on their youthful dreams, but the truth is, they're now part of the establishment. And the establishment works to preserve the status quo" (p. 565);

Crichton is careful not to accuse all environmentalists of being insincere. Only the leaders of environmental organizations, who should know better, are portrayed as deliberately misleading the media and general public in order to advance their careers. As for the rest of us, one character says: "Caring is irrelevant. Desire to do good is irrelevant. All that counts is *knowledge* and *results*" (p. 483).

8. Crichton Is Right Again!

Once again, Crichton is right in his analysis of the environmental movement. Many other authors have observed that the leaders of today's major environmental groups have lost sight of the original purpose of identifying and solving environmental problems. Instead, they rely on scare tactics and "junk science" to raise more than one billion dollars a year to support fancy corporate offices, large well-paid staffs, and a political agenda that leans to the left of the general public.

Other authors who have arrived at similar conclusions include:

Wilfred Beckerman, Through Green-Colored Glasses: Environmentalism Reconsidered, 1996.

James T. Bennett and Thomas J. DiLorenzo, *Cancer Scam: Diversion of Federal Cancer Funds to Politics*, 1998.

Indur M. Goklany, *The Precautionary Principle: A Critical Appraisal of Environmental Risk Assessment*, 2001.

Wallace Kaufman, No Turning Back: Dismantling the Fantasies of Environmental Thinking, 1994

S. Robert Lichter and Stanley Rothman, Environmental Cancer--A Political Disease? 1999.

Christopher Manes, Green Rage: Radical Environmentalism and the Unmaking of Civilization, 1990.

Daniel T. Oliver, *Animal Rights: The Inhumane Crusade*, 1999.

Julian Simon, *Hoodwinking the Nation*, 1999.

More than two dozen recent commentaries on the tactics of the environmental movement can be found on *PolicyBot*. Simply click on the *PolicyBot* button on Heartland's home page, choose "environment" from

the menu, and then "enviro groups" from the list of subtopics. Or just click here.

9. Toward a New Environmental Movement

In his "Author's Message" at the end of *State of Fear*, Crichton summarizes some of his own views on the issues his characters address earlier in the book. He also says:

We need a new environmental movement, with new goals and new organizations. We need more people working in the field, in the actual environment, and fewer people behind computer screens. We need more scientists and many fewer lawyers.

This is right on! Did you know the Sierra Club spends only about 7 percent of its budget on "outdoor activities"? (It said so right on the back of the reply form that accompanied its direct mail letters.) Is it right to call such an organization an "environmental" group when it is actually a direct-mail house connected to a Washington DC-lobbying shop?

Beyond this, the message of *State of Fear* has serious public policy consequences: Most of the environment and health protection regulations in the U.S. ought to be reformed so they address real rather than imaginary risks, and concentrate on what works instead of the liberal orthodoxy of big government solutions to every problem.

The U.S. is quite right to stay out of the Kyoto Protocol--the global warming treaty--and ought to be doing more to persuade other countries of the world that the protocol is unnecessary, premature, and unworkable.

Government should stop funding radical environmental groups--indeed, *all* environmental groups for that matter--and should investigate the ties between ecoterrorist organizations, supposedly mainstream environmental advocacy groups, and the foundations that fund them. When homes and businesses are torched by environmental extremists, law enforcement authorities should determine whether tax-exempt foundations helped buy the gasoline and matches those outlaws used to commit their crimes.

Eco-Sanity: A Common-Sense Guide to Environmentalism contains a succinct agenda for reforming environmental laws and regulations. To go directly to the right chapter, click **here**.

The Cato Institute's annual "Handbook for Congress" contains three chapters on how to reform environmental regulations. You can go to Cato's Web site and then search for chapters 43, 44, and 45 ... or just click on the links below:

Cato Handbook: Environmental Protection

Cato Handbook: Environmental Health: Risks and reality

Cato Handbook: Global Warming

The Heritage Foundation publishes a similar book, the latest edition titled *Issues 2004*, that offers a handy one-page summary of facts, talking points, and policy recommendations. You can download it by clicking **here**.

A vision for a new environmental movement has been spelled out by many authors, including several of

those mentioned in Section 8. Additional books that set forth positive agendas include:

Terry L. Anderson and Donald R. Leal, *Free Market Environmentalism*, revised edition, 2001.

Joseph Bast, Peter .J. Hill, and Richard Rue, *Eco-Sanity: A Common-Sense Guide to Environmentalism*, 1995, rev. edition 1996.

John D. Graham (ed.), Harnessing Science for Environmental Regulation, 1991.

John and Sean Paling, Up to Your Armpits in Alligators? How to sort out what risks are worth worrying about! 1994.

Peter VanDoren, Chemicals, Cancer, and Choices, 1999.

For shorter commentaries on a sound-science, free-market approach to environmental protection, click on the *PolicyBot* button on Heartland's home page, choose "environment" from the menu, and then "free-market" from the list of subtopics. Or just click **here**.

10. More on the Subject by Michael Crichton

Crichton addressed many of the issues that figure prominently in *State of Fear* in a speech he delivered on January 17, 2003, at Caltech. The complete text of that speech is available **here**.

Crichton explored the difficulty of distinguishing fantasy from reality--and offered advice relevant to the global warming debate--in a speech delivered on September 15, 2003 to the Commonwealth Club. The complete text of that speech is available **here**.

On January 2, Crichton was **interviewed by Jasper Gerard** in the January 2, 2005 *Sunday Times* [London]. It's an excellent overview of the controversy from a British perspective. For example, Gerard writes:

If you doubt Crichton's research, he offers enough footnotes citing scientific journals to fill a hefty volume of their own. As a Harvard physician and at the age of 22 a visiting anthropology lecturer at Cambridge, he is in nobody's intellectual slipstream. It is not so much that Crichton is being reactionary; rather, his view offends our almost religious veneration of green issues, a faith in mother earth which holds that driving to the bottle bank in a belching 4x4 is a profound act of worship.

11. Sources of More Research and Commentary

An excellent place to start is The Heartland Institute's "Environment Issue Suite" at http://www.heartland.org/Article.cfm?artId=10488. It begins with an essay by James M. Taylor, managing editor of *Environment & Climate News*, explaining the meaning of "common-sense environmentalism" and directing readers to the huge collection of research and commentary available on Heartland's Web site.

Also on Heartland's Web site is the complete text of *Eco-Sanity: A Common-Sense Guide to Environmentalism*, by Joseph Bast, Peter J. Hill, and Richard Rue (Madison Books, 1994, rev. paperback edition 1996), http://www.heartland.org/Article.cfm?artId=10489. This pathbreaking book lays out in plain language the real facts behind a dozen environmental issues--including global warming, resource depletion, chemicals, and nuclear energy--and presents a free-market paradigm for doing a better job protecting human health and the environment.

Heartland's Web site also contains every issue of *Environment & Climate News* since this important national monthly publication was launched in 1997:

http://www.heartland.org/Publications.cfm?pblId=1.

E&CN covers the national debate over global warming and other environmental controversies from a sound-science, free-market perspective, making it unique among national monthly publications. Regular contributors includes a *Who's Who* of free-market environmentalism, including Patrick Michaels, S. Fred Singer, Bonner Cohen, Ben Lieberman, Steven Milloy, Myron Ebell, Joel Schwartz, Jonathan Adler, Jay Lehr, Paul Driessen, Sallie Baliunas, and Willie Soon.

Other Web sites with good critical commentary on environmental issues and the environmental movement include:

American Enterprise Institute
Capital Research Center
Cato Institute
Climate Audit
Competitive Enterprise Institute
The Heritage Foundation
National Center for Policy Analysis
National Center for Public Policy Research
PERC
www.CO2science.org

12. What You Can Do

Michael Crichton's *State of Fear* presents very strong criticism of the leaders of the nation's big environmental advocacy organizations, and no doubt they will attempt to discredit Crichton, just as they have S. Fred Singer, Richard Lindzen, Sallie Balliunas, Patrick Michaels, Robert Balling, and the late Dixy Lee Ray. The difference this time, however, is that all those dissenters are or were prominent scientists respected by their peers but relatively unknown to the general public. Crichton is not a scientist, but he has accurately summarized their findings in a book that will reach millions of readers in the coming months, and tens of millions in the coming years.

You can help make sure Crichton's contribution to the debate is taken seriously and has lasting consequences:

■ Buy copies of the book for friends, relatives, coworkers, and opinion-leaders. This book makes a great gift for people you know who would never read a "political" book or a nonfiction discussion of global warming.

- Write your own reviews, op-eds, and letters to the editor citing *State of Fear* and repeating its author's arguments. The "mainstream" environmentalists will first try to ignore Crichton, then discredit him, and finally launch an all-out attack on him. You should be part of the defense by writing letters and posting your ideas on blogs.
- Support organizations that support sound science and market-based environmental protection. Most of them were mentioned earlier, and they include the Competitive Enterprise Institute, Heartland Institute, and PERC. They need and merit your financial support. (To become a member of donor of The Heartland Institute, click here.)
- Stop funding radical environmental groups, and urge people you know to do the same. They do not deserve your membership dollars or contributions. When you receive their fundraising letters, use the postage-paid reply envelopes to explain why you are not funding them.
- Stay abreast of the debate by visiting this Web site and some of the Web sites cited earlier. Only by being informed and aware can we create a "new environmental movement, with new goals and new organizations."
- Visit Crichton's official Web site at http://www.crichton-official.com/index.shtml and spend time there. Take part in the *State of Fear* message forums. And if you come across any Web forums or blogs that are attacking Crichton's book, **please let me know!** That way, we can share those links here and get Crichton's defenders to participate on those blogs, too.

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