

Annotated Oral Testimony of  
Dr. E. Calvin Beisner  
to the Environment and Public Works Committee  
of the  
United States Senate  
Wednesday, October 20, 2006

Mr. Chairman, members of the Committee, and distinguished guests, thank you for inviting me to speak to you today. Having never before this year been significantly involved in politics other than to vote in elections, it is strange to find myself here. But my moral convictions as a Christian persuade me that I must speak out on an issue on which literally millions of lives hang in the balance.

As a professor of Christian ethics, I distinguish principles and motives from applications. God through His Word has given us absolute moral principles: You shall have no other gods before Me; you shall not worship idols; you shall not take the name of the Lord in vain; remember the Sabbath day to keep it holy; honor your father and mother; you shall not murder, commit adultery, steal, bear false witness, or covet. As for motives, He says, “Do justice, love mercy, and walk humbly with your God” (Micah 6:8). These Ten Commandments and these three motives apply to all people, everywhere, in all circumstances.

But it isn’t always obvious *how* principles apply, and even with the best motives we may unintentionally do great harm. It is easy to look at an apparent threat and think, “We can solve that this way.” But sometimes we misunderstand the nature, causes, or extent of the threat, or fail to compare one threat with others that might be more significant, and so we prescribe solutions that won’t work, that unintentionally cause more harm than they prevent, or that divert investment from more helpful measures. What would have happened, for example, had Congress legally mandated the use of DES, a drug widely thought in the 1950s to reduce the risk of miscarriage later but found to be ineffective for that but to raise the risk of cervical and uterine cancer for women exposed to it in utero? Great harm, instead of the good intended—and reversing its use would have taken far longer than it did without the legal mandate.

For eighteen years I have been studying the ethics, economics, and science of environmental stewardship, especially global warming. I have read major books on global warming by leading scientists on all sides of the controversy, studied the IPCC Assessment Reports, and read hundreds of scholarly and popular articles. My study convinces me that there is a major disjunct between the best science and economics in the field, on the one hand, and popular media and public opinion, on the other. Time forbids detail here, but I have submitted fuller written testimony and request, Mr. Chairman, that it be included in the record.

Popular opinion is that human emissions of carbon dioxide are the majority cause of current warming, which is greater than any in history and will become catastrophic by the middle of this century, and that we can and must prevent that catastrophe by reducing CO<sub>2</sub> emissions.<sup>1</sup> In contrast,

---

<sup>1</sup>The popular belief that there is such a consensus is dubious at best. Since 1998 over 19,700 scientists have signed a petition saying, “There is no convincing scientific evidence that human release of carbon dioxide, methane, or other greenhouse gasses is causing or will, in the foreseeable future, cause catastrophic heating of the Earth’s atmosphere and disruption of the Earth’s climate. Moreover, there is substantial scientific evidence that increases in atmospheric carbon dioxide produce many beneficial effects upon the natural plant and animal environments of the Earth.” The signers include “2,660 physicists, geophysicists, climatologists, meteorologists, oceanographers, and environmental scientists who are especially well qualified to evaluate the effects of carbon dioxide on the Earth’s atmosphere and climate” and “5,017 scientists whose fields of specialization in chemistry, biochemistry, biology, and other life sciences make them especially well qualified to evaluate the effects of carbon dioxide on the Earth’s plant and animal life.” (See the Oregon Petition Project at <http://www.oism.org/pproject/s33p37.htm>. Dr. Art Robinson, who managed the project and keeps the signature list up to date, reports that additional scientists continue to sign the petition regularly, and almost none have removed their signatures in the nine years the petition has been in existence. For a complete list of signers, separate lists of those with specialized qualifications, and refutation of attempts to discredit the Petition, see <http://www.oism.org/pproject/s33p357.htm>.) Similarly, since 1995 over 1,500 topic-qualified scientists have signed the Leipzig Declaration opposing the Kyoto Protocol (<http://www.sepp.org/leipzig.html>). Forty-seven topic-qualified scientists who reject the hypothesis of catastrophic human-induced global warming are listed at [http://www.envirotruth.org/myth\\_experts.cfm](http://www.envirotruth.org/myth_experts.cfm), complete with contact information and notes on their subjects of expertise.)

In 2004 *Science* published the results of a study by Naomi Oreskes claiming that “without substantial disagreement, scientists find human activities are heating the earth’s surface.” (Naomi Oreskes, “The scientific consensus on climate change,” *Science*, vol. 306, issue 5702 (December 3, 2004), 1686, at <http://www.sciencemag.org/cgi/content/full/306/5702/1686>.) But an attempt at replicating the study both found that she had made serious mistakes in handling data and, after re-examining the data, reached contrary conclusions. Oreskes claimed that an analysis of 928 abstracts in the ISI database containing the phrase “climate change” proved the alleged consensus. It turned out that she had searched the database using three keywords (“global climate change”) instead of the two (“climate change”) she reported—reducing the search results by an order of magnitude. Searching just on “climate change” instead found almost 12,000 articles in the same database in the relevant decade. Excluded from Oreskes’s list were “countless research papers that show that global temperatures were similar or even higher during the Holocene Climate Optimum and the Medieval Warm Period when atmospheric CO<sub>2</sub> levels were much lower than today; that solar variability is a key driver of recent climate change; and that climate modeling is highly uncertain.” Further, even using the three key words she actually used, “global climate change,” brought up 1,247 documents, of which 1,117 included abstracts. An analysis of those abstracts showed that

- only 1 percent explicitly endorsed what Oreskes called the “consensus view”;
- 29 percent implicitly accepted it “but mainly focus[ed] on impact assessments of envisaged global climate change”;
- 8 percent focused on “mitigation”;
- 6 percent focused on methodological questions;
- 8 percent dealt “exclusively with paleo-climatological research unrelated to recent climate change”;
- 3 percent “reject[ed] or doubt[ed] the view that human activities are the main drivers of the ‘the [sic] observed warming over the last 50 years’”;
- 4 percent focused “on natural factors of global climate change”; and
- 42 percent did “not include any direct or indirect link or reference to human activities, CO<sub>2</sub> or greenhouse gas emissions, let alone anthropogenic forcing of recent climate change.”

(Benny J. Peiser, Letter to *Science*, January 4, 2005, submission ID: 56001. *Science* Associate Letters Editor Etta Kavanagh eventually decided against publishing the letter, or the shortened version of it provided at her request by Peiser, not because it was flawed but because “the basic points of your letter have already been widely dispersed over the internet” [e-mail from Etta Kavanagh to Benny Peiser, April 13, 2005]. Peiser, a scientist at Liverpool John Moores

as climatologist Roy Spencer, environmental economist Ross McKittrick, energy policy analyst Paul Driessen, and I argued in “A Call to Truth, Prudence, and Protection of the Poor: An Evangelical Response to Global Warming” ([www.interfaithstewardship.org](http://www.interfaithstewardship.org)), submitted herewith, the best science and economics indicate that

- current warming is within the range of natural variability;<sup>2</sup>

---

University, replied: “As far as I am aware, neither the details nor the results of my analysis have been cited anywhere. In any case, don’t you feel that SCIENCE has an obligation to your readers to correct manifest errors? After all, these errors continue to be employed by activists, journalists and science organizations . . . . Are you not aware that most observers know only too well that there is absolutely \*no\* consensus within the scientific community about global warming science?” He went on to cite a survey of “some 500 climatologists [that] found that ‘a quarter of respondents still question whether human activity is responsible for the most recent climatic changes,’” and other evidence. Peiser, e-mail to Kavanagh, April 14, 2005. The whole correspondence, including much more evidence of the lack of scientific consensus on anthropogenic global warming, is online at [www.staff.livjm.ac.uk/spsbpeis/Scienceletter.htm](http://www.staff.livjm.ac.uk/spsbpeis/Scienceletter.htm).)

On April 6, 2006, sixty well-qualified scientists working in the field of climate change sent an open letter to Canadian Prime Minister Stephen Harper, saying, “Observational evidence does not support today’s computer climate models, so there is little reason to trust model predictions of the future.” The scientists went on to reject the vision of catastrophic human-induced global warming and oppose the Kyoto Protocol (<http://www.canada.com/components/print.aspx?id=3711460e-bd5a-475d-a6be-4db87559d605>). Shortly afterward a group of leading New Zealand climatologists and meteorologists skeptical of catastrophic human-induced global warming formed The New Zealand Climate Science Coalition (<http://www.climatescience.org.nz/Index.php>). For a news report on it, see [http://www.nzherald.co.nz/section/story.cfm?c\\_id=1&ObjectID=10379768](http://www.nzherald.co.nz/section/story.cfm?c_id=1&ObjectID=10379768)). And on April 20, 2006, the British Broadcasting Corporation aired a radio program, “Overselling Climate Change,” in which many scientists, including those who believe global warming is a serious problem, decried exaggerated claims about it that undermine confidence in science (“Overselling Climate Change,” audio online at <http://www.bbc.co.uk/radio4/thebattleforinfluence/pip/abkim/>). As MIT climatologist Richard Lindzen testified before this committee,

Indeed, the whole issue of consensus and skeptics is a bit of a red herring. If, as the news media regularly report, global warming is the increase in temperature caused by man’s emissions of CO<sub>2</sub> that will give rise to rising sea levels, floods, droughts, weather extremes of all sorts, plagues, species elimination, and so on, then it is safe to say that global warming consists in so many aspects, that widespread agreement on all of them would be suspect *ab initio*. If it truly existed, it would be evidence of a thoroughly debased field. In truth, neither the full text of the IPCC documents nor even the summaries claim any such agreement. Those who insist that the science is settled should be required to state exactly what science they feel is settled.

**The idea of scientific consensus on catastrophic human-induced global warming is an illusion.** Further, science is not a matter of consensus but of data and valid arguments. As Thomas Kuhn so famously pointed out in *The Structure of Scientific Revolutions*, great advances in science, often involving major paradigm shifts, occur when small minorities patiently—and often in the face of withering opposition—point out anomalies in the data and inadequacies in the reigning explanatory paradigms until their number and weight become so large as to require a wholesale paradigm shift, and what once was a minority view becomes a new majority view. Indeed, skepticism is essential to science: “Most institutions demand unqualified faith; but the institution of science makes skepticism a virtue” (Robert K. Merton, “Science and the Social Order,” *Philosophy of Science* 5:3 (July 1938), 321-337, at 334).

<sup>2</sup>The principal basis of claims that current warming exceeds natural variation has been the work of paleoclimatologist Michael Mann and associates, best known through what has been called the “hockey stick” graph and cited by the Intergovernmental Panel on Climate Change’s *Third Assessment Report*. The target of serious criticism of its data gathering and statistical methodologies, that work was finally discredited by the “Ad Hoc Committee Report on the ‘Hockey Stick’ Global Climate Reconstruction” presented to the House Energy and Commerce Committee on July 14, 2006, and available online at [http://energycommerce.house.gov/108/home/07142006\\_Wegman\\_Report.pdf](http://energycommerce.house.gov/108/home/07142006_Wegman_Report.pdf).

- human emissions of CO<sub>2</sub> are a minor cause of global warming,<sup>3</sup> but they enhance plant growth

---

The “Wegman Report.” The Executive Summary reads in part:

In general, we found MBH98 and MBH99 to be somewhat obscure and incomplete and the criticisms of MM03/05a/05b to be valid and compelling. We also comment that they were attempting to draw attention to the discrepancies in MBH98 and MBH99, and not to do paleoclimatic temperature reconstruction. Normally, one would try to select a calibration dataset that is representative of the entire dataset. The 1902-1995 data is not fully appropriate for calibration and leads to a misuse in principal component analysis. However, the reasons for setting 1902-1995 as the calibration point presented in the narrative of MBH98 sounds reasonable, and the error may be easily overlooked by someone not trained in statistical methodology. We note that there is no evidence that Dr. Mann or any of the other authors in paleoclimatology studies have had significant interactions with mainstream statisticians.

In our further exploration of the social network of authorships in temperature reconstruction, we found that at least 43 authors have direct ties to Dr. Mann by virtue of coauthored papers with him. Our findings from this analysis suggest that authors in the area of paleoclimate studies are closely connected and thus ‘independent studies’ may not be as independent as they might appear on the surface. This committee does not believe that web logs are an appropriate forum for the scientific debate on this issue.

It is important to note the isolation of the paleoclimate community; even though they rely heavily on statistical methods they do not seem to be interacting with the statistical community. Additionally, we judge that the sharing of research materials, data and results was haphazardly and grudgingly done. In this case we judge that there was too much reliance on peer review, which was not necessarily independent. Moreover, the work has been sufficiently politicized that this community can hardly reassess their public positions without losing credibility. Overall, our committee believes that Mann’s assessments that the decade of the 1990s was the hottest decade of the millennium and that 1998 was the hottest year of the millennium cannot be supported by his analysis.

<sup>3</sup>Media often report the claim in the Executive Summary of the IPCC’s *Third Assessment Report* that attributes “most of the warming” to human influences, but the working conclusion of the scientific panel was much more reserved, saying, ““From the body of evidence since IPCC (1996), we conclude that there has been *a discernible* human influence on global climate. Studies are beginning to separate the contributions to observed climate change attributable to individual external influences, both anthropogenic and natural. This work suggests that anthropogenic greenhouse gases are *a substantial* contributor to the observed warming, especially over the past 30 years. However, the accuracy of these estimates continues to be limited by *uncertainties* in estimates of internal variability, natural and anthropogenic forcing, and the climate response to external forcing.” (Government and Expert Review Draft, IPCC Working Group 1 Third Assessment Report, 5, emphases added.) A number of studies support the conclusion that natural causes—e.g. fluctuations in solar output, changes in cloud forcing, and precipitation microphysics—could outweigh human CO<sub>2</sub> emissions as causes of the current global warmth. The IPCC attributes the whole warming of the first half of the twentieth century—about 0.5° C—to solar variability. John T. Houghton, *et al.*, *Climate Change 2001: The Scientific Basis. Contribution of Working Group 1 to the Third Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge: Cambridge University Press, 2001), 697. See also Climate Research Committee, Board on Atmospheric Sciences and Climate, Commission on Geosciences, Environment, and Resources of the National Research Council, “Natural Climate Variability On Decade-to-Century Time Scales” (Washington, D.C.: National Academy Press, 1995), online at: <http://darwin.nap.edu/books/0309054494/html>; N. O. Renno, K. A. Emanuel, and P. H. Stone, “Radiative-convective model with an explicit hydrologic cycle 1. Formulation and sensitivity to model parameters,” *Journal of Geophysical Research* 99 (July 10, 1994), 14,429-14,441. Such natural causes—especially fluctuations in solar energy output, changes in earth’s orbit and tilt (The Marian Koshland Science Museum of the National Academy of Sciences explains and illustrates these well in “Global Warming Facts & Our Future” at <http://www.koshland-science-museum.org/exhibitgcc/causes08.jsp>), and other long and (geologically) short cycles—certainly outweigh human CO<sub>2</sub> emissions as causes of climate change in history. See, e.g., S. Fred Singer and Dennis T. Avery, “The Physical Evidence of Earth’s Unstoppable 1,500-Year Climate Cycle” (Dallas: National Center for Policy Analysis, NCPA Policy Report No. 279, 2005), and Singer and Avery, *Unstoppable Global Warming—Every 1,500 Years* (Lanham: Rowman & Littlefield, 2006 [forthcoming]).

and so contribute to feeding the human population and all other species;<sup>4</sup>

- global warming is unlikely to become catastrophic in the foreseeable future;<sup>5</sup>
- no achievable reductions in CO<sub>2</sub> emissions would reduce future temperature detectably, let alone enough to avert catastrophe;<sup>6</sup> and

---

<sup>4</sup>For every doubling of atmospheric CO<sub>2</sub> concentration, there is an average 35 percent increase in plant growth efficiency. Plants grow better in warmer and colder temperatures and in drier and wetter conditions, and they are more resistant to diseases and pests. Consequently their ranges and yields increase. Many studies have been published demonstrating the benefits of rising CO<sub>2</sub> to agriculture. Much of the work has been done by scientists at the Center for the Study of Carbon Dioxide and Global Change, <http://www.co2science.org/scripts/CO2ScienceB2C/Index.jsp>, which has links to many articles by both its own scientists and others.

<sup>5</sup>Catastrophic climate scenarios critically depend on the extremely unlikely assumption that global average temperature would rise 6° C (10.8° F) or more in response to doubled CO<sub>2</sub>. But more credible estimates of climate sensitivity to doubled CO<sub>2</sub> have been in the range of 1.5° to 4.5° C (2.7° to 8.1° F). Researchers using several independent lines of evidence asserted a “maximum likelihood estimate . . . close to 3° C” (5.4° F). They concluded, “our implied claim that climate sensitivity actually has as much as a 5% chance of exceeding 4.5° C is not a position that we would care to defend with any vigour, since even if it is hard to formally rule it out, we are unaware of any significant evidence in favour of such a high value.” (J. D. Annan and J. C. Hargreaves, “Using multiple observationally-based constraints to estimate climate sensitivity,” *Geophysical Research Letters*, vol. 33, L06704, doi:10.1029/2005GL025259, 2006, online at <http://www.agu.org/pubs/crossref/2006/2005GL025259.shtml>; prepublication draft at [http://www.jamstec.go.jp/frcgc/research/d5/jdannan/GRL\\_sensitivity.pdf](http://www.jamstec.go.jp/frcgc/research/d5/jdannan/GRL_sensitivity.pdf). See also G. Hegerl, et al., “Climate sensitivity constrained by temperature reconstructions over the past seven centuries,” *Nature* 440 (April 20, 2006): 1029-1032.) It is very unlikely that warming in that range would cause catastrophic consequences. Why? Among other reasons, because CO<sub>2</sub>-induced warming will occur mostly in winter, mostly in polar regions, and mostly at night. But in polar regions, where winter night temperatures range far below freezing, an increase of 5.4° F is hardly likely to cause significant melting of polar ice caps or other problems.

Even if the recent strong warming trend (at most 1° F in the last thirty years) is entirely manmade (and it almost certainly is not), and even if it continues for another thirty years (as it might), global average temperature will only be at most 1° F warmer than now. Predicting climate beyond then depends on assumptions about future use of fossil fuels. Such assumptions are dubious in light of continuous changes in energy sources throughout modern human history. Who could have predicted our current mix of energy sources a century-and-a-half ago, when wood, coal, and whale oil were the most important components and petroleum and natural gas were barely in use?

<sup>6</sup>Calculations of the range of temperature reduction from compliance with Kyoto differ but are all very low. E.g.: (1) “the Kyoto Protocol . . . , if adhered to by every signatory (including the United States)[,] would only reduce surface temperature by 0.07° C (.13° F) in fifty years” (Michaels, *Meltdown*, 19). (2) “Global mean reductions [in warming by 2100] for the three scenarios are small, 0.08-0.28°C” [i.e., 0.14-0.5° F] (T. M. L. Wigley, “The Kyoto Protocol: CO<sub>2</sub>, CH<sub>4</sub> and Climate Implications,” *Geophysical Research Letters*, vol. 25 [July 1998], 2285-88, at 2287). Wigley writes: “For B=CONST, the expected global-mean warming to 2100 is reduced by [Kyoto compliance by] 0.10-0.21°C depending on the climate sensitivity (close to 7% in all cases). For NOMORE, the reduction in warming is 4%, while for the B= -1% case it is approximately 14%. The rate of slow-down in temperature rise is small, with no sign of any approach to climate stabilization. *The Protocol, therefore, . . . can be considered only as a first and relatively small step towards stabilizing the climate*” (Wigley, “The Kyoto Protocol,” 2287-88, emphasis added). National Center for Atmospheric Research scientist Jerry Mahlman says elimination of human-induced warming would require “forty successful Kyotos” (Tim Appenzeller and Dennis Dimick, “The Heat Is On,” *National Geographic*, September 2004, 11). David Malakoff cites other climate scientists as saying thirty (David Malakoff, “Thirty Kyotos Needed to Control Warming,” *Science*, December 19, 1997, 2048). As MIT climatologist and IPCC reviewer Richard Lindzen put it in testimony before this committee, “Should a catastrophic scenario prove correct, Kyoto will not prevent it. If we view

- such efforts would fruitlessly divert scarce resources from other endeavors that would be of far greater benefit to humanity.

Rather than focus narrowly on a single problem, we must choose carefully where to invest our limited resources. The hundreds of billions of dollars per year it would cost the global economy to significantly reduce CO<sub>2</sub> emissions would be of little or no benefit to humanity.<sup>7</sup> When the scholars of the Copenhagen Consensus ranked seventeen challenges facing humanity, the three *best* investments were fighting communicable diseases, fighting malnutrition and hunger by providing micronutrients, and liberalizing trade, while the three *worst* investments all had to do with reducing CO<sub>2</sub> emissions to mitigate global warming. Money would be far better spent on AIDS and malaria prevention, water sanitation, and nutrition.<sup>8</sup>

A clean, healthful environment being a costly good, wealthier communities better afford it than poorer ones, and affordable energy is crucial to creating wealth. Electrifying the billion or more

---

Kyoto as an insurance policy, it is a policy where the premium appears to exceed the potential damages, and where the coverage extends to only a small fraction of the potential damages. Does anyone really want this? I suspect not.” (“Testimony of Richard S. Lindzen before the Senate Environment and Public Works Committee on 2 May 2001,” online at [http://epw.senate.gov/107th/lin\\_0502.htm](http://epw.senate.gov/107th/lin_0502.htm).)

<sup>7</sup>Compliance with the Protocol, without a global carbon emissions trading mechanism, could cost the global economy about \$1 trillion per year, yet full compliance would reduce global warming by less than 0.2° F by 2050. (Bjørn Lomborg, “Should we implement the Kyoto Protocol? No—We risk burdening the global community with a cost much higher than that of global warming,” at [www.spiked-online.com/articles/00000002D2C3.htm](http://www.spiked-online.com/articles/00000002D2C3.htm).) More specifically, with no emissions trading, the combined annual cost of compliance in the year 2010 to the United States, the European Union, Japan, Canada, Australia, and New Zealand alone would be around \$350 billion; with emissions trading within two blocks of that group, about \$240 billion; with unrestricted trading within all Annex I countries, slightly over \$150 billion; and with global trading, about \$75 billion. Lomborg, *Skeptical Environmentalist*, 303, Figure 158, citing John P. Weyant and Jennifer N. Hill, “Introduction and overview,” *The Energy Journal*, Kyoto Special Issue [1999], vii–xlv, at xxxiii–xxxiv, and Bureau of Economic Analysis, *Price Indexes for Gross Domestic Product and Gross Domestic Purchases* ([www.bea.doc.gov/bea/dn/st3.csv](http://www.bea.doc.gov/bea/dn/st3.csv)) and *Selected NIPA Tables showing advance estimates for the fourth quarter of 2000* ([www.bea.doc.gov/bea/dn/dpga.txt](http://www.bea.doc.gov/bea/dn/dpga.txt)), both 2001.

<sup>8</sup>Bjørn Lomborg, *Global Crises, Global Solutions* (Cambridge: Cambridge University Press, 2004); <http://www.copenhagenconsensus.com/Default.aspx?ID=675>. In the process, studies by specialists and respondents were submitted to eight expert economists, including three Nobel Laureates, who then prioritized major problems facing mankind and alternative solutions to them and then ranked them from most to least effective. The alternatives were divided into four categories of cost-effectiveness—Very Good, Good, Fair, and Bad—and listed in descending order of cost effectiveness (how many people would experience how much benefit at what cost) within each category. The results (*Global Crises, Global Solutions*, 606) were: **Very Good**: 1. Communicable diseases: control of HIV/AIDS. 2. Malnutrition and hunger: providing micronutrients. 3. Subsidies and trade: trade liberalization. 4. Communicable diseases: control of malaria. **Good**: 5. Malnutrition and hunger: development of new agricultural technologies. 6. Sanitation and water: community-managed water supply and sanitation. 7. Sanitation and water: small-scale water technology for livelihoods. 8. Sanitation and water: research on water productivity in food production. 9. Governance and corruption: lowering the cost of starting a new business. **Fair**: 10. Migration: lowering barriers to migration for skilled workers. 11. Malnutrition and hunger: improving infant and child nutrition. 12. Communicable diseases: scaled-up basic health services. 13. Malnutrition and hunger: reducing the prevalence of low birth weight. **Bad**: 14. Migration: guest worker programs for the unskilled. 15. Climate change: optimal carbon tax. 16. Climate change: Kyoto Protocol. 17. Climate change: value-at-risk carbon tax. **Of the seventeen options, the three worst all had to do with attempting to reduce global warming.**

homes that use wood and dung as their chief fuels for heating and cooking would eliminate most of the 1.6 million premature deaths per year that the World Health Organization attributes to indoor smoke.<sup>9</sup> Sharing technology with rapidly growing economies like India and China would speed both their adoption of cleaner fuels and their economic development. The strong correlation between economic development and improved health and life expectancy underscores the morality of such a policy. It would be morally unconscionable to force the world's developing countries to delay their climb out of poverty by denying them, as would any serious cuts in CO<sub>2</sub> emissions, the cheap, abundant energy available from carbon fuels.

The Bible tells us to “remember the poor” (Galatians 2:10). We need not, in order to identify the morally preferable global climate policy, resolve the enormously complex controversy over the causes and extent of global warming or the possibility of mitigating it. There is one thing we already know quite well: a richer society endures any catastrophe better than a poorer one. If we want to help the world's poor, we shall do so far better by helping them become wealthy and able to adapt to whatever temperature the future holds than by slowing their economic development, condemning them to additional generations of poverty and its attendant suffering, and depriving them of the wealth they need to triumph over any future catastrophe.<sup>10</sup> I urge you, therefore, to support policies that will promote economic development—for the sake of both the world's poor, and the world's environment.

---

E. Calvin Beisner, Ph.D., is associate professor of social ethics at Knox Theological Seminary, national spokesman for the Interfaith Stewardship Alliance, and a co-founder of the Interfaith Council on Environmental Stewardship and co-author of “The Cornwall Declaration on Environmental Stewardship.” He has written three books on environmental stewardship: *Prospects for Growth: A Biblical View of Population, Resources, and the Future* (1990); *Man, Economy, and Environment in Biblical Perspective* (1994), and *Where Garden Meets Wilderness: Evangelical Entry Into the Environmental Debate* (1997). He was managing editor of *The State of Humanity* (1995). He is co-author of “A Call to Truth, Prudence, and Protection of the Poor: An Evangelical Response to Global Warming” (2006); of “An Examination of the Scientific, Ethical, and Theological Implications of Climate Change Policy” (2005); and of “A Biblical Perspective on Environmental Stewardship,” in *Environmental Stewardship in the Judeo-Christian Tradition: Jewish, Catholic, and Protestant Wisdom on the Environment*, edited by Michael B. Barkey (2000).

---

<sup>9</sup>The Intermediate Technology Development Group, citing United Nations and International Energy Agency data. Smoke from wood and dung fires thus kills more people than malaria and almost as many as unsafe drinking water and lack of sanitation. Most of its victims are women and children. Alex Kirby, “Indoor smoke ‘kills millions,’” BBC News, November 28, 2003, online at <http://news.bbc.co.uk/go/pr/fr/-/2/hi/science/nature/3244214.stm>.

<sup>10</sup>The world's poor are much better served by enhancing their wealth through economic development than by whatever minute reductions might be achieved in future global warming by reducing CO<sub>2</sub> emissions. See, as examples of studies supporting such conclusions, the following papers by environmental policy analyst Indur M. Goklany: “Comments to the Stern Review on the Economics of Climate Change,” March 17, 2006, at <http://members.cox.net/goklany/Stern%202.pdf>; “Evidence for the Stern Review on the Economics of Climate Change,” December 9, 2005, <http://members.cox.net/goklany/Goklany-%20Evidence%20for%20Stern%20Review.pdf>; “Integrated Strategies to Reduce Vulnerability and Advance Adaptation, Mitigation, and Sustainable Development,” [http://members.cox.net/igoklany/Goklany-Integrating\\_A&M\\_preprint.pdf](http://members.cox.net/igoklany/Goklany-Integrating_A&M_preprint.pdf); “A Climate Policy for the Short and Medium Term: Stabilization or Adaptation?,” *Energy & Environment* 16:3&4 (2005), [http://members.cox.net/igoklany/EEv16\\_Stab\\_or\\_Adaptation.pdf](http://members.cox.net/igoklany/EEv16_Stab_or_Adaptation.pdf); “Evidence to the House of Lords Select Committee on Economic Affairs on Aspects of the Economics of Climate Change,” *Energy & Environment* 16:3&4 (2005), [http://members.cox.net/igoklany/EEv16-3+4\\_GoklanyHoL\\_Evidence.pdf](http://members.cox.net/igoklany/EEv16-3+4_GoklanyHoL_Evidence.pdf).