

RESPONSE

The Worst of Times, or “It Wouldn’t Be Cool”

by Daniel Barstow Magraw

Of *Montreal and Kyoto: A Tale of Two Protocols* (*Tale*)¹ includes several thought-provoking propositions and conclusions. I will discuss four: (1) winners and losers in climate change; (2) differences between the two Protocols; (3) the use of cost-benefit analysis; and (4) what motivates the United States (and other countries) regarding the Kyoto Protocol and other international issues.

I. Winners and Losers

Tale makes the important and somewhat discomfiting assertion that there are winners and losers in climate change.² I learned this is an unpopular idea while helping organize a conference on that topic in Malta in 1990³; parts of the U.S. government were not pleased that the conference focused on that topic. The idea is important because it reveals an equity aspect of climate change, demonstrates the need to assist developing countries (which tend to be losers),⁴ and suggests why some countries (perhaps including the United States) may be unwilling to make the effort that protecting humankind and our planet apparently requires. It may be misleading, however, because it masks the fact that some of the possible effects of climate change, e.g., a major shift in ocean currents, are so cataclysmic that they would seriously harm all countries, overcoming any meaningful distinction between winners and losers.

II. Differences Between Ozone Depletion and Climate Change

Tale accurately identifies several similarities and differences between the problems leading to the Montreal Protocol and the Kyoto Protocol.⁵ One important difference is that climate change involves a much greater disparity between short-term winners and losers than depletion of the stratospheric ozone layer does, thus making international cooperation less likely regarding the former. Through its repeated emphasis on the comparison between

the two Protocols, however, *Tale* downplays several critical distinctions between the problems of climate change and ozone depletion.

Tale virtually ignores the vastly greater uncertainty with respect to the phenomenon and effects of climate change. Although there was considerable scientific uncertainty at the time the Montreal Protocol was negotiated—as evidenced by the then-recent discovery of the Antarctic ozone hole and the perceived need for the Montreal Protocol’s non-consensus adjustment mechanism⁶—that uncertainty pales in comparison to the multiple manifold uncertainties regarding the risks associated with climate change. Space does not allow a full catalogue here, but climate change uncertainties have included: the degree to which average global temperature will increase⁷; the role of various substances in causing climate change (e.g., of so-called precursors⁸ and of particular greenhouse gases (GHGs) such as hydrochlorofluorocarbons (HCFC)₂₂⁹; the carbon storage potential of various sinks (e.g., the oceans); the extent and even net effect of various feedback loops (e.g., water vapor and clouds, which are created by global warming and which also trap heat in the atmosphere but also reflect energy back into space); the likelihood of reaching tipping points leading to cataclysmic events (e.g., cessation of the Gulf Stream); and effects on a local scale (as distinguished from the global scale). Significant uncertainty also exists about mitigation and adaptation measures, for example, regarding the rates of economic growth and of technological change regarding energy production, eco-efficiency, and carbon sequestration.

These uncertainties, many of which persist, are heightened by the dynamic nature of climate change and they led to the formation of the Intergovernmental Panel on Climate Change (IPCC).¹⁰ They also provide reasons or excuses for delay by those inclined to move slowly or not at all, complicate policymaking for those who do want to address the problem, and are a significant reason why cost-benefit analysis cannot meaningfully be applied to climate change and to related activities such as ratifying the Kyoto Protocol (as is discussed further below).

Tale also underestimates the importance of the realities that a much broader set of activities leads to climate change and a much larger range and depth of mitigation and adaptation measures are necessary to deal with it. These realities

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1. Cass R. Sunstein, *Of Montreal and Kyoto: A Tale of Two Protocols*, 38 ELR (ENVTL. L. & POL’Y ANN. REV.) 10566 (Aug. 2008) (a longer version of this article was originally published at 155 U. PA. L. REV. 1605 (2007)).

2. *Id.*

3. See UNITED NATIONS ENVIRONMENT PROGRAM (UNEP) & NAT’L CENTER FOR ATMOSPHERIC RESEARCH, REPORT OF THE WORKSHOP ON ASSESSING WINNERS AND LOSERS IN THE CONTEXT OF GLOBAL WARMING (1990).

4. INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (IPCC), CLIMATE CHANGE 2007: SYNTHESIS REPORT §3.3.1 (Rajendra K. Pachauri eds., 2007) [hereinafter IPCC SYNTHESIS].

5. Montreal Protocol on Substances That Deplete the Ozone Layer, Sept. 16, 1987, 1522 U.N.T.S. 3 [hereinafter Montreal Protocol]; Kyoto Protocol to the United Nations Framework Convention on Climate Change, Dec. 10, 1997, 37 I.L.M. 22 (1998) [hereinafter Kyoto Protocol].

6. Montreal Protocol, *supra* note 5, art. 2, ¶ 9.

7. For example, the IPCC predicts a global temperature increase of 1.8 to 4.0 degrees Celsius (°C) by the end of this century. IPCC SYNTHESIS, *supra* note 4, §3.2.

8. *Id.* §3.1.

9. See, e.g., Guss J.M. Velders et al., *The Importance of the Montreal Protocol in Protecting Climate*, 104 PROC. NAT’L ACAD. SCI. 4814 (2007); Keith Bradsher, *Push to Fix Ozone Layer and Slow Global Warming*, N.Y. TIMES, Mar. 15, 2007, at C3.

10. The IPCC was formed in 1988 by the World Meteorological Organization and the UNEP. It has three working groups (science, impacts and adaptation, and mitigation). It issued its fourth set of reports in 2007.

can paralyze policymakers and, in any event, make domestic and international policymaking much more difficult than it was with respect to ozone depletion.

III. Cost-Benefit Analysis

The logic and conclusions of *Tale* are based in large part on assumptions about the existence, veracity, and effect of cost-benefit analyses as they relate to the ratification of the Kyoto Protocol (and other measures designed to combat climate change). *Tale* provides specific cost-benefit analyses for the United States and the globe, and concludes that the United States has not ratified the Kyoto Protocol because a cost-benefit analysis by prominent analysts indicated that the United States had more to lose than to gain from ratification.¹¹ *Tale* makes a similar claim regarding China.¹² *Tale* includes disclaimers, such that it does “not mean to suggest that all relevant officials . . . based their decision on a formal cost-benefit calculation of any kind,” and it refers to an “intuitive” sense that the United States had more to lose than to gain, and that the cost-benefit analysis cannot offer an “unimpeachable point estimate”¹³; but *Tale*’s analysis depends to a remarkable degree on the usefulness and credibility of cost-benefit analyses.

Unfortunately for that approach, cost-benefit analysis figures regarding ratifying the Kyoto Protocol specifically and climate change generally are subject to serious challenge. Substantial literature exists detailing difficulties of cost-benefit analysis, particularly with respect to health, safety, and the environment. It is not surprising, therefore, to find that the well-known difficulties of cost-benefit analysis are present with respect to climate change generally and the Kyoto Protocol specifically; and there are other characteristics of the science, ethics, and politics of climate change and the Kyoto Protocol that make cost-benefit analysis even less appropriate and reliable in these contexts. The following discussion summarizes several of these difficulties.

A. Massive Uncertainty, Including Regarding Tipping Points and Cataclysmic Outcomes

Cost-benefit analysis depends on accurate predictions regarding probable effects of action and inaction. As described above, however, climate change is characterized by massive uncertainties of many types. The presence of these uncertainties means that cost-benefit analysis estimates are extraordinarily speculative.

One particular type of uncertainty is potential tipping points and non-marginal, cataclysmic and irreversible outcomes, such as a shift or cessation of the Gulf Stream. Neither their likelihood nor probable effects can be accurately predicted, and they further exacerbate the speculative nature of cost-benefit analyses regarding climate change.

B. Impossibility of Valuing and Monetizing Relevant Interests, Including Ethical Considerations

Cost-benefit analysis depends on numerical and monetized figures for its comparisons, and yet these comparisons are fundamentally flawed in areas like climate change because many relevant considerations cannot be meaningfully monetized. For example, climate change will have widespread effects on nature’s ability to provide the ecosystem services that are the real infrastructure of society.¹⁴ Many of these effects cannot be meaningfully monetized. Climate change will have other profound impacts, not only on economic activity, but also on environments, societies, human health, cultures, religious practices, social justice, and political fortunes (some of which can be considered as aspects of ecosystem services) around the world. These impacts cannot be meaningfully factored into cost-benefit analysis, yet no responsible decisionmaker will ignore them.

Related to the preceding point is the fact that cost-benefit analysis excludes ethical considerations. Climate change, however, is rife with equitable issues, both intergenerational and intragenerational. Countries differ markedly in terms of their contribution to climate change, both historically and currently (whether measured by absolute emissions, per capita emissions, or emissions per unit of gross domestic product), their ability to mitigate or adapt to climate change, and the extent to which they will be harmed or benefitted by climate change. Even disregarding the moral imperative of considering factors such as these, they can have important political implications for dealing with climate change and thus cannot be treated as irrelevant.

C. Externalities

Climate change is an externality relating to the emission of GHGs and precursors; but cost-benefit analysis cannot take account of externalities, because it primarily relies on market prices. Indeed, there is something surreal in relying on such prices when trying to assess the largest market failure in history. The use of a “global cost-benefit analysis” does not cure this deficiency.

D. Long-Term Discount Rates

Critical to the issue of intergenerational equity is the use of discount rates in cost-benefit analysis to determine the present value of future costs and benefits. The usual difficulty of selecting such a rate is greatly exacerbated in the case of climate change because of the dynamic and possibly non-marginal aspects of climate change. The very long time frames involved in measuring the future harms associated with climate change present a particular difficulty, for example calculating the benefits of mitigation efforts. This difficulty may not apply to specific short-term activities relating to climate change, but it certainly applies to the Kyoto Protocol, which is part of a long-term process.¹⁵

11. Sunstein, *supra* note 1, at 10569.

12. *Id.*

13. Cass R. Sunstein, *Of Montreal and Kyoto: A Tale of Two Protocols*, 31 HARV. ENVTL. L. REV. 1, 35, 33 (2007). These quotations were in large part removed from the condensed version of Prof. Cass Sunstein’s article published in this issue, although the general ideas remain.

14. See MILLENNIUM ECOSYSTEM ASSESSMENT, ECOSYSTEMS, AND HUMAN WELL-BEING: SYNTHESIS 40 (2005).

15. NICHOLAS STERN, THE ECONOMICS OF CLIMATE CHANGE: THE STERN REVIEW 23, 44-48, 52 (2007).

E. Human Rights

Climate change arguably implicates human rights because it affects individual's property, culture, livelihood, and standard of living, and even can result in loss of life.¹⁶ Cost-benefit analysis cannot account for a country's obligation to protect human rights; and it cannot trump the obligation to protect human rights.

F. Multi-Step Process and Demonstration Effect

The Kyoto Protocol was correctly viewed as just one stage in a multi-step process involving serial international instruments. Attempting cost-benefit analysis with respect to the Kyoto Protocol thus must take into account the likely characteristics and outcomes of the future steps, which adds yet another set of uncertainties to those identified above.

A peculiar aspect of the Kyoto Protocol, not present with the Montreal Protocol, is that developing countries refused to accept any binding reduction targets until the industrialized countries demonstrated that they would, in fact, reduce their emissions.¹⁷ This attitude owes its strength to the facts that GHG emissions from industrialized countries (including particularly the United States) caused the current climate change crisis, and that those GHG emissions were important in achieving the high standards of living in industrialized countries, thus leading to a virtually unanimous sense of inequity on the part of developing countries. Accounting for this "demonstration effect" in a cost-benefit analysis of the Kyoto Protocol, raises yet another challenge, not only to the cost-benefit analysis itself, but also to assertions that the Kyoto Protocol can or should be analyzed in isolation without reference to its effect in leading to future climate change commitments by developing countries in new international instruments.

Taken together, the preceding difficulties demonstrate that cost-benefit analyses of the Kyoto Protocol are so speculative and incomplete as to be meaningless.¹⁸ The Stern Commission was only slightly more forgiving, concluding that: "Standard externality and cost-benefit approaches have their usefulness for analyzing climate change, but, as they are methods focused on evaluating marginal changes, and generally abstract from dynamics and risk, they can only be starting points for further work."¹⁹ Cost-benefit analysis thus should not be used as a basis for deciding what action to take on the Kyoto Protocol or any other major action with respect to climate change.²⁰

16. See United Nations Human Rights Council Draft Resolution on Human Rights and Climate Change, U.N. Doc. A/HRC/7/L.21/Rev.1 (Mar. 26, 2008); The Malé Declaration on the Human Dimension of Climate Change (Nov. 14, 2007), available at http://www.ciel.org/Publications/Male_Declaration_Nov07.pdf; Martin Wagner & Donald M. Goldberg, An Inuit Petition to the Inter-American Commission on Human Rights for Dangerous Impacts of Climate Change (Dec. 15, 2004) (paper presented at the 10th Conference of the Parties to the Framework Convention on Climate Change in Buenos Aires, Arg.), available at http://www.ciel.org/Publications/COP10_Handout_EJCIEL.pdf.

17. Sunstein, *supra* note 1, at 10570.

18. Douglas A. Kysar, *Climate Change, Cultural Transformation, and Comprehensive Rationality*, 31 B.C. ENVTL. AFF. L. REV. 555, 562-90 (2004).

19. STERN, *supra* note 15, at 23.

20. By this, I do not mean to suggest that policymakers should not carefully attempt to determine the economic, social, and environmental

IV. "It Wouldn't Be Cool" and Other Factors That Contributed to Kyoto's Failures

Based on my own experience as a government official during much of the relevant time period (March 1992-December 2001), I believe it is also the case that, as an empirical matter, a commonly accepted cost-benefit analysis (or a set of cost-benefit analyses) did not play a strong role in setting U.S. policy toward the Kyoto Protocol or toward climate change generally. This is partly the case because of the nature of governmental decisionmaking.

Within any U.S. administration, important positions are typically reached as a result of an intense interagency process. Agencies' positions typically depend on their mandate, values, and legal constraints. The U.S. Environmental Protection Agency (EPA), the U.S. Department of State and the U.S. Department of Energy, to mention just three agencies that participated in the climate change debate, differ markedly in these respects and certainly do not approach cost-benefit analysis in the same way. For example, the Clean Air Act²¹ prohibits EPA from making decisions on the basis of cost-benefit analysis. Similarly, negotiations between Congress and the current Administration on climate change reflect differing perspectives, roles, and interests. Even the U.S. Senate and the U.S. House of Representatives (both would need to pass implementing legislation if the United States were to ratify the Kyoto Protocol) approach climate change issues through different lenses.

In addition, it was the worst of times in the United States for taking strong action on climate change generally and for ratifying the Kyoto Protocol specifically. This was the case not because of a commonly accepted cost-benefit analysis, but for several other reasons:

- Implementation of the Kyoto Protocol would undoubtedly demand nonvoluntary measures, which would in turn require serious domestic regulatory activity. The 1997-2006 Congresses, however, were fiercely anti-regulatory, as is the current Administration.
- Climate change is viewed as an "environmental" problem,²² but this Administration has not viewed protecting the environment as a priority, and indeed has taken many steps to reduce environmental protections.²³
- Climate change requires a coordinated multilateral effort, but this current Administration has been opposed to multilateral approaches in many arenas, including the environment.²⁴
- The Kyoto Protocol constitutes binding international law, but this Administration has been hostile toward international law and institutions in many

implications of such actions; the question is what role cost-benefit analysis should play.

21. 42 U.S.C. §§7401-7671q, ELR STAT. CAA §§101-618.

22. Sunstein, *supra* note 1, at 10566 (referring to climate change in the same way).

23. See, e.g., Natural Resources Defense Council, Inc., *NRDC: The Bush Record*, <http://www.nrdc.org/bushrecord/default.asp> (last visited June 3, 2008).

24. See Winston P. Nagan & Craig Hammer, *The New Bush National Security Doctrine and the Rule of Law*, 22 BERKELEY J. INT'L L. 375, 401 (2004) (discussing the Bush Administration's general adherence to unilateralism).

instances, preferring instead voluntary activities, e.g., regarding mercury pollution.²⁵

- Climate change has significant implications for fossil fuels, but this Administration has strong ties to the oil industry, and powerful members of Congress are strong supporters of the use of coal.
- Ratifying the Kyoto Protocol requires concurrence of two-thirds of the U.S. senators present,²⁶ but the Senate has been notoriously unwilling to consent to ratifying environmental treaties from the mid-1990s to the present time, e.g., the Senate has not approved ratification of the United Nations Convention on the Law of the Sea despite the support of the security establishment, industry, the environmental community, and both Presidents William J. Clinton and George W. Bush.²⁷
- Finally, implementing the Kyoto Protocol would require important legislative action, but the U.S. political climate has been bitterly partisan almost continuously since 1997, making passage of that magnitude of legislation extremely unlikely.

It is not exactly clear what motivated U.S. policy toward the Kyoto Protocol, of course. At a White House ceremony in 2001 to sign the Stockholm Convention on Persistent Organic Pollutants, one of my staff asked President Bush why he was not willing to sign the Kyoto Protocol. The president responded: “It wouldn’t be cool.”²⁸ That response is consis-

tent with the idea that the Kyoto Protocol would not be effective, but it also would be consistent with a more gut-level rejection of the Kyoto Protocol based on other reasons.

Tale concludes with an observation that in order to achieve successful participation by the United States and other countries, the international community must devise a regime that gives those countries reasons to believe that they will gain more from participating than they will lose.²⁹ This observation has some merit if two things pertain. First, the evaluation will not solely turn on cost-benefit analysis: politicians are too savvy for that and governments are too complicated for that. Second, “gain” must be understood as meaning more than economic gain: myriad considerations enter into politicians’ and countries’ evaluations of what is in their interest.

Indeed, there is even ground for hope that *Tale*’s concluding thought is too cynical. Just as a business may engage in enlightened self-interest and undertake activities that do not actually increase net profit or the value of shares in any measurable way, so politicians and countries are sometimes motivated by grand factors. They are, of course, sometimes motivated by petty factors too.

It is one of the lessons of environmentalism that the biosphere, including human society as a whole, is interdependent. Without question, globalization reinforces that interdependence—environmentally, economically, culturally, and politically. It is possible that the threat to human civilization posed by climate change will cause countries to understand that their own interests and survival are inextricably tied with those of other countries—just as World War II caused countries to view the aggressive use of force from a global humanitarian perspective rather than from their narrow self-interest—and thus that concern for the common good will strongly influence decisions regarding climate change.

25. See Press Release, Michael Bender, Executive Dir., Mercury Policy Project, U.S. Plans to Thwart Global Mercury Treaty Talks, Document Shows (Jan. 27, 2003), available at <http://www.mercurypolicy.org/new/documents/BanHgRelease012703.pdf> (discussing U.S. efforts to block a binding international treaty on mercury).

26. U.S. CONST. art. II, §2, cl. 2.

27. Contrary to Sunstein, *supra* note 1, at 10568, the Senate has not expressed its opposition to or rejected the Kyoto Protocol, nor has the Senate even had the opportunity to consider it since it was not sent to the Senate by either President Clinton or Bush.

28. I have heard accounts of this exchange from three people who were present. The accounts of the precise wording of President Bush’s re-

sponse differ, but each includes the idea that becoming a Party to the Kyoto Protocol would not be “cool.”

29. Sunstein, *supra* note 1, at 10574.