

Time to Take Action on Climate Communication

Thomas E. Bowman, Edward Maibach, Michael E. Mann, Richard C. J. Somerville, Barry J. Seltser, Baruch Fischhoff, Stephen M. Gardiner, Robert J. Gould, Anthony Leiserowitz and Gary Yohe.

Science 19 November 2010: 1044. DOI:10.1126/science.330.6007.1044

According to broad international agreement, a global warming increase beyond 2°C is unacceptable (**1**). Because of the physics of the climate system, we must ensure that global emissions of greenhouse gases peak and start to decline rapidly within a decade in order to have a reasonable chance of meeting the 2°C goal (**2**). Humankind has waffled and delayed for decades; further delay risks serious consequences for people and the ecosystems on which we rely.

Because the potential consequences of climate change are so high, the science community has an obligation to help people, organizations, and governments make informed decisions. Yet existing institutions are not well suited to this task. **Therefore, we call for the science community to develop, implement, and sustain an independent initiative with a singular mandate: to actively and effectively share information about climate change risks and potential solutions with the public, particularly decision-makers in the public, private, and nonprofit sectors.**

Moreover, we call on philanthropic funding institutions to endorse and provide sustained support for the initiative.

The initiative must make concerted efforts to provide people, organizations, and governments with critical information, to address misperceptions, and to counter misinformation and deception. In doing so, it will have to overcome psychological and cultural barriers to learning and engagement (**3–5**).

The initiative should be judged against two critical outcomes: (i) improved understanding of risks and potential solutions by people, organizations, and governments, and (ii) more informed decision-making—and less avoidance of decision-making—about how to manage those risks. The initiative should be an embodiment of what Fischhoff calls “non-persuasive

communication.” It should not advocate specific policy decisions; good decision-making involves weighing the best available information with the values of the decision-makers and those affected by the decisions.

The initiative should recruit a full range of climate scientists, decision scientists, and communication professionals into the effort (6, 7) to ensure both sound scientific information and effective communication. In addition, it should build bridges to other communities of experts—such as clergy, financial managers, business managers, and insurers—who help people, organizations, and governments assess and express their values. Scientists and nonscientists alike inevitably interpret climate science information in the context of other information and values; the initiative should mobilize experts who can facilitate appropriate and useful interpretations.

Despite the politically contentious nature of climate change policy, the initiative must be strictly nonpartisan. In the face of efforts to undermine public confidence in science, it must become a trusted broker of unbiased information for people on all sides of the issue.

At this potentially critical moment for human civilization, it is imperative that people, organizations, and governments be given the resources they need to participate in constructive civic, commercial, and personal decision-making about climate change risks and solutions.

1. M. Meinshausen et al., *Nature* 458, 1158 (2009). [CrossRefMedlineWeb of Science](#) a Pattern
2. National Research Council, *Evaluating Progress of the U.S. Climate Change Science Program: Methods and Preliminary Results* (National Academies Press, Washington, DC, 2007).
3. National Research Council, *Informing Decisions in a Changing Climate* (National Academies Press, Washington, DC, 2009).
4. National Research Council, *Informing an Effective Response to Climate Change* (National Academies Press, Washington, DC, 2010).
5. B. Fischhoff, *Environ. Sci. Technol. Online* 41, 7207 (2007).

T. E. Bowman, E. Maibach, M. E. Mann, S. C. Moser, R. C. J. Somerville, *Science* 324, 36-*b* (2009).