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<http://sciencepolicy.colorado.edu/ogmius>.

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## Introduction to Ogmius Exchange

**F**rank Laird, an associate professor of technology and public policy at the Graduate School of International Studies, University of Denver (<http://www.du.edu/gsis/faculty/laird/>), as well as a faculty affiliate here at the Center, offers the following perspective on policymaking and the related concepts of “peak oil” and global warming. Frank maintains there are no inevitable policy alternatives in dealing with these issues, and to argue otherwise is to “distort the reality of policy making and short-change society by trying to close off debate over the many and possibly creative solutions that policy could bring to bear on these problems.”



For more information see the following resources:

Association for the Study of Peak Oil and Gas, <http://www.peakoil.net/>

The Long Emergency, <http://www.energybulletin.net/4856.html>

IPCC Climate Change 2007, <http://www.ipcc.ch/>

An Inconvenient Truth, <http://www.aninconvenienttruth.co.uk/>

James Lovelock: Nuclear power is the only green solution, <http://www.ecolo.org/media/articles/articles.in.english/love-indep-24-05-04.htm>

Greenpeace: The nuclear fallacy: Why nuclear power is part of the problem, [http://www.greenpeace.org/international/campaigns/climate-change/solutions/nuclear\\_fallacy](http://www.greenpeace.org/international/campaigns/climate-change/solutions/nuclear_fallacy)

The Honest Broker: Making Sense of Science in Policy and Politics, by Roger Pielke, Jr., [http://sciencepolicy.colorado.edu/publications/special/honest\\_broker/](http://sciencepolicy.colorado.edu/publications/special/honest_broker/)

## Ogmius Exchange

### *Apocalypse Soon: Climate Change, the End of Oil, and the Perils of Limiting Choices*

**A** recent spate of books and articles proclaim the end of oil and an imminent crisis for the world. Likewise, global warming alarms sound from almost every corner of the press. What are policy makers to do? How should policy analysts help decision makers frame the debate and assess the alternatives? Many advocates are trying to do exactly the wrong thing: narrow

policy makers' options through a rhetoric proclaiming that policy makers will have *no choice* but to adopt their favored technology, so the sooner they get to it, the better. This approach both misunderstands how policy making works and does a disservice to policy makers.

Advocates of peak oil claim that the global rate of oil production will encounter its geological limit and start

## Ogmios Exchange Continued



to decline just as world demand increases, due to greater consumption in both the wealthy countries and the rapidly growing economies of China and India. Depending on the assumptions they adopt, analysts argue for different years of peak production, varying from a few years to a couple of

decades away, i.e. soon. Whenever it occurs, the result will be a rapid increase in oil prices, which in turn will make more expensive everything from transportation to food production. The consequence of such increased prices will be at least global recession and possibly depression, mass starvation, and resource wars.

When analysts start talking about possible alternatives to this disaster, the answers range from the possibly enticing to the truly grim. For the latter, some people argue that there is no technical fix and that policy makers will fail to do things that could cushion the blow, due to entrenched interests that get large short-term benefits from the status quo. The result will be several decades of global turmoil until societies gradually and painfully adjust to expensive energy as a permanent situation and eventually find lower-energy modes of life, which will include what we would now consider to be a greatly reduced standard of living. At the more optimistic end of the spectrum some analysts believe that a combination of greater energy efficiency and alternative fuels can keep the wolf from the door. However, the change to this more sustainable mode of life will be more difficult and painful the longer we wait, which means that the single most important goal for public policy should be strenuous efforts to start such a transition now.

Those books on peak oil dovetail nicely with another raft of books on global warming, most famously Al Gore's new book and movie *An Inconvenient Truth*. These books make popular what has been circulating in the scientific community for some time: climate scientists have moved toward a strong consensus that the climate is measurably warming now and that anthropogenic greenhouse gas emissions are the primary culprit. Continued emissions of greenhouse gases will further that warming, with serious consequences, though the nature and timing of those consequences are impossible to predict. Climate skeptics have dwindled in number and reports from institutions like the National Academy of Sciences and the government's Climate Change Science Program have pushed the skeptics to the margin of national debates.

These events make for heady times for advocates who believe that their technologies will solve such problems. Ironically, both renewable and nuclear energy advocates see themselves as possessing the key to an energy-abundant and climate-safe future. Both advocacy communities have been around for decades, have a history of mutual hostility, and think their time is nigh. Yet both groups are using a language of inevitability that suggests a naïveté about public policy, short-changes the policy process, and makes it all the harder to have intelligent, nuanced discussions of the difficult policy choices that lie ahead.

Their central point is that society or governments will have "no choice" but to adopt their preferred solution. They believe that the problems of peak oil and climate change present such severe problems to our society that policy makers will realize that they must adopt nuclear or renewable energy, that the lack of choice will be plain.

This language distorts the reality of policy making and short-changes society by trying to close off debate over the many and possibly creative solutions that policy could bring to bear on these problems. The central fact of policy making is that governments always have a choice. No circumstance, no matter how dire, leaves them with only one choice. To be sure, not all choices are equally good, and anyone familiar with history will know that sometimes governments make bad, even disastrous, choices. But they always have choices to make. Pretending otherwise just misunderstands all we know about public policy.

Talking about inevitability also short-changes society because it is an effort to restrict the scope and creativity of policy making, shutting out competing voices and narrowing the scope of thinking about what are multi-dimensional problems. In the cases of peak oil and global warming, nuclear and renewable advocacy groups are promoting straightforward technological solutions to problems that are political, social, economic, and cultural, as well as technological. Historians of policy and technology have provided us with scores of cases in which simple technical fixes did not work as intended precisely because technologies interact in complex ways with those other variables. Indeed, what are alleged to be simple technical solutions carry with them powerful assumptions about the kind of society and world in which they will function.

These are not merely abstract concerns. By all accounts, global warming is already upon us, and no conceivable set of policies can prevent at least some additional warming. Despite strenuous research efforts, the precise level of warming and the extent and distribution of its consequences remain highly uncertain. Under such circumstances, to think

## Ogmios Exchange Continued

only about energy technologies that emit fewer greenhouse gases, indeed to declare such technologies the inevitable solution to the problem, avoids the very necessary consideration of how to adapt to existing climate change, how to ensure that new energy technologies don't create even worse unintended consequences, how to keep policy flexible so it can learn and adapt to futures that no one can predict, and how to integrate the social, economic, and other non-technological considerations into a policy that makes the world better instead of worse.

The same concerns hold for peak oil. If the problem is that prices will keep going up, that countries will fight (literally) over diminishing supplies, and that the world will exhibit the political and social pathologies of rapidly declining economies, policy makers should think about more than new technologies

to replace oil. We know that they will have multiple choices in seeking out new energy sources. We also know that many of those sources will have nasty political, social, and environmental consequences. Now is the time to expand our thinking about everything from diplomacy to economic and social development, as well as technological innovation, not declare that governments have no choice. As Roger Pielke Jr, has put it, the purpose of policy analysis is to open up alternatives for policy makers, not tell them the one best thing to do, much less try to persuade them that they only have one choice. History treats such hubris harshly.

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## Research Highlight

### *Massachusetts v. EPA: Who Should Run the Greenhouse?*

**M**arilyn Averill ([http://sciencepolicy.colorado.edu/about-us/meet-us/marilyn\\_averill/](http://sciencepolicy.colorado.edu/about-us/meet-us/marilyn_averill/)) is a doctoral student in Environmental Studies at the University of Colorado. Her research interests focus on international environmental governance, the politics of science, and science and technology policy, particularly in the context of global climate change. Marilyn formerly worked as an attorney with the Office of the Solicitor, United States Department of the Interior, where she provided legal advice to the U.S. Fish and Wildlife Service and the National Park Service. She holds Master's degrees in Public Administration from the Kennedy School of Government and in Educational Research and Evaluation Methodology from the University of Colorado, and a law degree from the University of Colorado.



Marilyn's recent work has focused on the use of science and the treatment of uncertainty in litigation relating to climate change, and the effects these cases may have on law, science, and policy. The following Research Highlight describes her assessment of the recent U.S. Supreme Court decision on EPA's authority to regulate greenhouse gas emissions under the Clean Air Act.

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**I**n a split (5 to 4) decision in *Massachusetts v. Environmental Protection Agency* (EPA), 549 U.S. \_\_\_ (2007), the Supreme Court ruled that the Clean Air Act (CAA) gives

the EPA authority to regulate greenhouse gas (GHG) emissions from the tailpipes of new motor vehicles. The Court sent the case back to EPA to decide whether such emissions "may reasonably be anticipated to endanger public health or welfare," the CAA standard.

This case has little to do with climate science or even global warming and much to do with the role courts should play in deciding cases of social significance in a democratic society. It is less about EPA's authority than about the Court's authority, and involves views of the separation of powers of the three branches of our government. Climate science was generally uncontested. None of the three opinions questions whether global warming is occurring or whether it is partly driven by human activities, but the justices strongly disagreed as to which branch of government should address the problem.

Much of the majority opinion and the two dissenting opinions focus on whether the issue of regulating greenhouse gases is justiciable, that is, whether this case should be decided by the courts. More specifically, the case is about whether plaintiffs had standing to bring their claims to the courts. U.S. courts are limited to deciding cases and controversies grounded in specific allegations of injuries that can be redressed by a court's decision. The majority found that plaintiffs had adequately alleged injuries to support standing; the dissent disagreed. The majority applied a relaxed standard for standing available only to states, so this case may not provide useful precedent for private litigants seeking to establish standing in other climate-related cases.

## Research Highlight Continued

Uncertainty continues to play an important role. The majority allowed standing, but left the door open for EPA to find that “scientific uncertainty is so profound” that EPA cannot determine whether GHGs endanger human health or welfare. (Opinion at 31.) For the dissent, uncertainty blurs the causal link between GHG emissions and the injuries alleged, as well as EPA’s ability to remedy the situation.

This decision’s effects may be primarily symbolic. EPA has avoided regulating GHGs for the last six years and probably will continue to do so until the current administration leaves office. Regardless of content, future CAA regulation alone will do little to address the problem of global warming. But effects may extend beyond regulation. Congress has been

considering proposals on climate change and debate over this case could stimulate action. Congress now has several options. It can do nothing and let EPA reconsider its decision not to regulate GHGs; step in to limit or expand EPA’s authority under the CAA; or provide a more comprehensive framework for dealing with climate change issues at the federal level. All of this will take time, so in spite of this decision, federal regulation of GHGs may not occur any time soon.

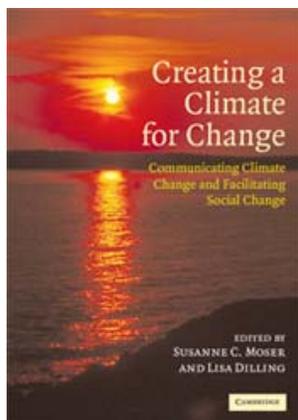
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## Center News New Center Books

*Creating a Climate for Change: Communicating Climate Change and Facilitating Social Change*  
by Susanne C. Moser and Lisa Dilling (Editors)

### Description:

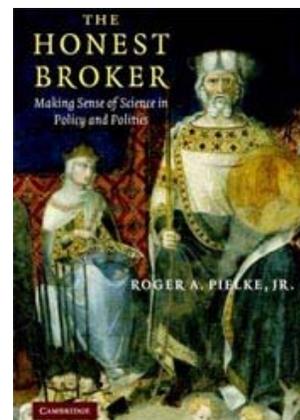
**T**he need for effective communication, public outreach, and education to increase support for policy, collective action and behavior change is ever present, and is perhaps most pressing in the context of anthropogenic climate change. This book is the first to take a comprehensive look at communication and social change specifically targeted to climate change. It is a unique collection of ideas examining the challenges associated with communicating climate change in order to facilitate societal response. It offers well-founded, practical suggestions on how to communicate climate change and how to approach related social change more effectively. The contributors of this book come from a diverse range of backgrounds, from government and academia to non-governmental and civic sectors of society. The book is accessibly written, and any specialized terminology is explained. It will be of great interest to academic researchers and professionals in climate change, environmental policy, science communication, psychology, sociology, and geography.



*The Honest Broker: Making Sense of Science in Policy and Politics*  
by Roger Pielke, Jr.

### Description:

**S**cientists have a choice concerning what role they should play in political debates and policy formation, particularly in terms of how they present their research. This book is about understanding this choice, what considerations are important to think about when deciding, and the consequences of such choices for the individual scientist and the broader scientific enterprise. Rather than prescribing what course of action each scientist ought to take, the book aims to identify a range of options for individual scientists to consider in making their own judgments about how they would like to position themselves in relation to policy and politics. Using examples from a range of scientific controversies and thought-provoking analogies from other walks of life, *The Honest Broker* challenges us all - scientists, politicians and citizens - to think carefully about how best science can contribute to policy-making and a healthy democracy.



For more information about these books see: [http://sciencepolicy.colorado.edu/publications/new\\_books.html](http://sciencepolicy.colorado.edu/publications/new_books.html).

## Center News

*Roger Pielke, Jr. Testifies Before Congress*

Center director Roger Pielke, Jr., testified before the House Committee on Oversight and Government Reform at its hearing on "Allegations of Political Interference with the Work of Government Climate Change Scientists" January 30, 2007. Roger's main point was that "politics and science cannot in practice be separated. Consequently, policies for the production,



promotion, and use of information in decision making should be based on the realities of science in politics, and not on the mistaken impression that they can somehow be kept separate. Efforts to separate them will in most cases only contribute to the pathological politicization of science." To read his remarks in their entirety see: <http://sciencepolicy.colorado.edu/prometheus/archives/PielkeTestimony30Jan07.pdf>.

For more information visit the hearing website: <http://oversight.house.gov/story.asp?ID=1162>.

## Center News

*Shali Mohleji Wins Graduate Research Assistantship Award*

Center graduate student Shali Mohleji ([http://sciencepolicy.colorado.edu/about\\_us/meet\\_us/shali\\_m/](http://sciencepolicy.colorado.edu/about_us/meet_us/shali_m/)), whose research focuses on homeland security policy, was awarded a GRA through the highly competitive CIRES Graduate Research Fellowship program.



The program was created to promote scholarship and research excellence in students advised by CIRES faculty. Evaluations of the 2007-2008 applications were based on each candidate's accomplishments, ability to communicate and work independently, letter of recommendation, and the likelihood of future contributions to the environmental sciences. ]

**Congrats Shali!**

## Center News

*Center at AGU, AMS, AAAS*

Center staff members and graduate students gave the following talks at the December 11-15 American Geophysical Union Fall 2006 Meeting in San Francisco:

- Creating Usable Science in the 21st Century: Strategies for More Effectively Connecting Science to Societal Needs, Lisa Dilling and Genevieve Maricle
- How to achieve benefit from mission-oriented research: Lessons from the U.S. Department of Agriculture and the Naval Research Laboratory, Nat Logar
- In Pursuit of Usable Science: Assessing the Impact of Human Dimensions of Global Change Research, Genevieve Maricle
- Supporting the creation of usable science: Progress and Challenges, Lisa Dilling
- Examining the earthquakes damages record: What does the last 100 years of losses mean for natural hazards policy?, Kevin Vranes
- The Limits to Relevance, Marilyn Averill and Adam Briggie

Center staff and students presented the following talks at the January 14-18, 2007 American Meteorological Society's annual meeting in San Antonio, Texas:

- Shifting Research Priorities: The Role of Human Dimensions of Global Change Research, Genevieve Maricle
- Defining Usable Science, Lisa Dilling and Maria Carmen Lemos

Center staff and students presented the following talks at the February 15 – 19, 2007 AAAS annual meeting in San Francisco:

- The Challenge of Communicating About Climate Change To Support Societal Action, Lisa Dilling
- Shaping Science: How to Craft Research Agendas to Meet Society's Needs, Genevieve Maricle

For more information and to view the abstracts of these talks see: [http://sciencepolicy.colorado.edu/outreach/center\\_talks.html](http://sciencepolicy.colorado.edu/outreach/center_talks.html).

## Center News

*Carl Mitcham Keynote Speaker at Ethics Conference*

**C**enter faculty affiliate Carl Mitcham ([http://sciencepolicy.colorado.edu/about\\_us/meet\\_us/carl\\_mitcham/](http://sciencepolicy.colorado.edu/about_us/meet_us/carl_mitcham/)) was a keynote speaker at the February 16 "Policy, Ethics & the Future of Human Intelligence" conference at the



National Press Club in Washington, DC.

The Institute on Biotechnology and the Human Future (IBHF) at Chicago-Kent College of Law/Illinois Institute of Technology hosted this conference which brought together some of the key voices in the discussion of critical 21st-century issues.

## Center News

*Center's Noontime Seminar Series Continues*

**T**he Center's popular Noontime Seminar series continues this spring with the following schedule of talks:

**January 23:** Paul Komor, *Meeting Colorado's Future Electricity Needs: One Question, Many Answers*

**January 25:** Katinka Waelbers, *Philosophy of Science, Technology & Society: Masters program at the University of Twente*

**February 6:** Björn-Ola Linnér, *Who gets what, how and when: Historical Responsibility & Emissions Trade in Climate Policy*

**February 22:** Kevin Vranes, *What does "success" mean for earthquake mitigation policy?*

**March 6:** Mark Squillace, *The Future of Federal Wetlands Regulation*

**March 13:** Doug Kenney and Chris Goemans, *Managing Residential Water Demand: Lessons from Aurora, Colorado*



*Mark Squillace  
March 6, 2007*

**March 20:** Shali Mohleji, *The Challenges Facing Homeland Security S&T*

**April 3:** Nat Logar, *Models for societal benefit from federally-funded mission institutions*

**April 10:** Marilyn Averill, *The U.S. Supreme Court's recent decision in Massachusetts vs. EPA*

**April 13:** Eva Lövbrand, *The politics of expertise in the Kyoto negotiations on land use change and forestry*

**April 18:** Wayne Ambler, *Introducing Engineering Undergraduates to STS and Policy Issues: A New Course*

**May 3:** Edward Dunlea, *Recent Advances in Ambient Aerosol Research*

**June (Date TBA):** Steve Nerem, *Satellite Measurements of Sea Level Change: What do they tell us?*

All talks are free, open to the public, and located at the Center (for directions see: [http://sciencepolicy.colorado.edu/about\\_us/find\\_us.html](http://sciencepolicy.colorado.edu/about_us/find_us.html)). For more information about these and other Center events see: [http://sciencepolicy.colorado.edu/outreach/center\\_talks.html](http://sciencepolicy.colorado.edu/outreach/center_talks.html).

## Project News

*Science Policy Assessment and Research on Climate (SPARC)*

**T**he Center's NSF project, Science Policy Assessment and Research on Climate

(SPARC) (<http://sciencepolicy.colorado.edu/sparc/>), is now in its third year. As the following summary of activities indicates, SPARC has been very productive in addressing the connection of climate science policies to climate-related decision-making.



- **Eva Lovbrand** from Sweden joined SPARC in January 2007 as a postdoctoral researcher. Eva's research will extend the scope of SPARC to the European research arena by building upon a case study of a large European climate research network, the ADAM programme (Adaptation and Mitigation strategies for climate change). The ADAM programme has a very explicit aim to reconcile its knowledge supply with stakeholder demands, and is therefore of great interest in the SPARC context.
- Follow-up activities continue from the May 2006

## Project News Continued

- Workshop on Climate Change and Disaster Losses: Understanding and Attributing Trends and Projections.** A summary brochure was distributed at the FCCC COP in Nairobi in December. Peter Hoeppe and Roger Pielke, Jr. have prepared a summary that will appear in the Munich Re annual GeoTopics summary of disasters. The workshop report is available online ([http://sciencepolicy.colorado.edu/sparc/research/projects/extreme\\_events/munich\\_workshop/workshop\\_report.html](http://sciencepolicy.colorado.edu/sparc/research/projects/extreme_events/munich_workshop/workshop_report.html)) and has been featured in various journals and news media.
- **Netra Chhetri** has been leading an effort to conduct a sensitivity analysis of water resources to multiple stressors in the southwestern United States. One of the outcomes of this work has been the development of a draft white paper on “Decision Making under Uncertainty: Ranking of Multiple Stressors on Central Arizona Water Resources” ([http://www.cspo.org/working/WhitePaper\\_Final.pdf](http://www.cspo.org/working/WhitePaper_Final.pdf)). The white paper served as the basis for a workshop on “Ranking of Stressors on Water Resources” that brought together 30 experts from 15 institutions. The findings from the paper, which was endorsed by workshop participants with comments, reveal that water used for outdoor irrigation for single family residences and irrigation for agriculture play a larger role in creating future impacts than does climate change, and are arguably more amenable to policy makers for managing demand in these sectors.
  - **Mark Neff** is working on a bibliometric study of the output of the field of ecology in order to map changing research priorities as background research for the ecosystem sensitivity analysis. He presented his research at the Ecological Society of America Annual Meeting and the Gordon Research Conference on Science and Technology Policy. Mark attended the recent meeting of the Association for Fire Ecology in San Diego to assess the possibility of using western forests as the subject of SPARC’s second ecosystem sensitivity analysis. The subject of the meeting was the role of climate change in fire ecology.
  - **Myanna Lahsen** is conducting research for SPARC on development issues related to climate, including adaptation, vulnerability assessments and, more generally, how science is used or not used in determining climate policy and associated development decision making. An end product is an article manuscript seeking to explain why Latin American countries appear to have been particularly disinclined to consider the merits of adaptation as an element of overall policy responses. Her data will be mostly from Brazil and the article will specifically focus on this country context.
  - **Elizabeth McNie** is in the data collection phase for her SPARC dissertation work on the Regional Integrated Sciences and Assessments (RISAs). She is currently working with Bill Clark’s group at Harvard researching boundary organizations in Indonesia as part of a recently funded project.
  - Articles from the **special issue of Environmental Science and Policy** that focused on RSD for carbon-related topics are now available online ([http://sciencepolicy.colorado.edu/publications/special/rsd\\_for\\_science.html](http://sciencepolicy.colorado.edu/publications/special/rsd_for_science.html)). See Recent Publications on page 8 for titles.
  - **Nat Logar’s** dissertation research on Agricultural Research Service (ARS) is continuing, as part of larger comparative study on how agencies reconcile supply and demand for information. In addition to expanding the breadth of this research, Nat will focus on how ARS integrates its research with other relevant bodies within the USDA, such as the Natural Resource Conservation Services, Extension Services, and Economic Research Services.
  - **Ryan Meyer** has been mapping the US Climate Change Science Program’s (CCSP) strategic plan, and has presented preliminary results at the Gordon Research Conference on Science and Technology Policy, and at the annual meeting of the Society for the Social Studies of Science. He is currently developing plans to map the decision making (or agenda setting) landscape of the supply side of climate science in the US.
  - **Genevieve Maricle’s** dissertation is looking at the role of science studies in science policy, and human dimensions research related to climate change.
  - Two recent special sessions were organized by SPARC members. Genevieve Maricle and Roger Pielke, Jr. co-chaired **“Questioning Relevance: Exploring the boundary between STS and STP”** at the Society for the Social Studies of Science (4S) and Lisa Dilling, Nat Logar, Genevieve Maricle and Rebecca Morss (NCAR) co-chaired: **“Creating usable science in the 21st Century: Strategies for more effectively connecting science to societal needs”** at the American Geophysical Union annual meeting.
  - SPARC members also presented at **The Second Symposium on Policy and Socio-Economic Research, 87th AMS Annual Meeting** in San Antonio, Texas and at the AAAS Special Session on “Decision-Making Under Uncertainty: The Challenge of Sustainable Well-Being,” which highlighted the work of the DMUU centers, including SPARC.

## Project News Continued

### Recent SPARC Publications

Pielke, Sr., R.A. and R.A. Pielke, Jr. 2006. **Climatology: between Science and Politics, Heartland: Eurasian Review of Geopolitics**, 2, pp. 59-63, [http://sciencepolicy.colorado.edu/admin/publication\\_files/resource-2467-2006.10.pdf](http://sciencepolicy.colorado.edu/admin/publication_files/resource-2467-2006.10.pdf).

Pielke, Jr., R. A. 2006. **Climate change is serious, but we have to have a realistic response**, Guardian Unlimited, London, United Kingdom, 13 October, <http://www.guardian.co.uk/zurichfutuology/story/0,,1920333,00.html>.

Pielke, R.A., 2006. **What just ain't so: It is all too easy to underestimate the challenges posed by climate change**. Book review of Kicking the Carbon Habit: Global Warming and the Case for Renewable and Nuclear Energy by William Sweet, Nature, Vol 443, pp. 753-754, [http://sciencepolicy.colorado.edu/admin/publication\\_files/resource-2475-2006.12.pdf](http://sciencepolicy.colorado.edu/admin/publication_files/resource-2475-2006.12.pdf).

Höppe, P. and R.A. Pielke, Jr. (eds.), 2006. **Workshop on Climate Change and Disaster Losses: Understanding and Attributing Trends and Projections**, Final Workshop Report. Hohenkammer, Germany, 25-26 May, [http://sciencepolicy.colorado.edu/sparc/research/projects/extreme\\_events/munich\\_workshop/workshop\\_report.html](http://sciencepolicy.colorado.edu/sparc/research/projects/extreme_events/munich_workshop/workshop_report.html).

Dilling, L. (ed.), 2006. **Workshop on Decision Support and Carbon Cycle Science: Practical Strategies to Reconciling the Supply of and Demand for Carbon Cycle Science, Final Workshop Report**. Boulder, Colorado, 13-14 June 2005, [http://sciencepolicy.colorado.edu/sparc/research/projects/rsd/workshop\\_report.pdf](http://sciencepolicy.colorado.edu/sparc/research/projects/rsd/workshop_report.pdf).

Chhetri, N., 2006. **Decision Making Under Uncertainty: Ranking of Multiple Stressors on Central Arizona Water Resources**, Workshop on Water Stressor Ranking, 2-3 November, [http://sciencepolicy.colorado.edu/admin/publication\\_files/resource-2479-sparc\\_2006.01.pdf](http://sciencepolicy.colorado.edu/admin/publication_files/resource-2479-sparc_2006.01.pdf).

## Recent Publications

**D**an Sarewitz, Steve Dovers, and Roger Pielke, Jr. guest edited a special issue of

*Environmental Science & Policy* which is titled Reconciling the Supply of and Demand for Science, with a focus on carbon cycle research. All seven papers in this special issue were published in 2007 and each of the papers has an author or co-author here at the Center (download available at: [http://sciencepolicy.colorado.edu/publications/special/rsd\\_for\\_science.html](http://sciencepolicy.colorado.edu/publications/special/rsd_for_science.html)):

Dilling, L., 2007. **The opportunities and responsibility for carbon cycle science in the U.S.**, *Environmental Science & Policy*, Vol. 10, pp. 1-4.

Dilling, L., 2007. **Towards science in support of decision making: characterizing the supply of carbon cycle science**, *Environmental Science & Policy*, Vol. 10, pp. 48-61.

Lahsen, M. and C. A. Nobre, 2007. **Challenges of connecting international science and local level sustainability efforts: the case of the Large-Scale Biosphere-Atmosphere Experiment in Amazonia**, *Environmental Science & Policy*, Vol. 10, pp. 62-74.



Logar, N. J. and R. T. Conant, 2007. **Reconciling the supply of and demand for carbon cycle science in the U.S. agricultural sector**, *Environmental Science & Policy*, Vol. 10, pp. 75-84.

Lövbrand, E., 2007. **Pure science or policy involvement? Ambiguous boundary-work for Swedish carbon cycle science**, *Environmental Science & Policy*, Vol. 10, pp. 39-47.

McNie, E., 2007. **Reconciling the supply of scientific information with user demands: an analysis of the problem and review of the literature**, *Environmental Science & Policy*, Vol. 10, pp. 17-38.

Sarewitz, D. and R. A. Pielke, Jr., 2007. **The neglected heart of science policy: reconciling supply of and demand for science**, *Environmental Science & Policy*, Vol. 10, pp. 5-16.

Other recent Center publications include:

Moser, S. and Dilling, L. (eds.), 2007. **Creating a Climate for Change: Communicating Climate Change and Facilitating Social Change**. Cambridge University Press.

Pielke, Jr., R.A., Prins, G., Rayner, S. and Sarewitz, D., 2007. **Lifting the taboo on adaptation**. *Nature*, Vol. 445, pp. 597-598.

## Recent Prometheus Blogs

**A**s always, Center staff members and students, as well as guest writers, have contributed many provocative posts to our science policy weblog, Prometheus (<http://sciencepolicy.colorado.edu/prometheus/>). The following is a sample of recent posts (feedback/contributions welcome at: <http://sciencepolicy.colorado.edu/prometheus/AskP.html>):

### *The assessors assessing the assessments* by Kevin Vranes

Fresh out of the National Academies, commissioned by the CCSP, is a fabulous new climate-related assessment: Analysis of Global Change Assessments: Lessons Learned. The report identifies for the U.S. Climate Change Science Program the essential elements of effective global change assessments, including strategic framing, engagement of stakeholders, credible treatment of uncertainties, and a transparent interface between policymakers and scientists. The report reviews lessons learned from past assessments, which are intended to inform policymakers about the scientific underpinnings of critical environmental issues such as climate change, loss of biodiversity, and ozone depletion.

Which would be great, but for two things we can identify right off the bat:

1. The most identifiable end user of a climate change assessment is the federal-level (and perhaps state-level) policy maker... read more at: [http://sciencepolicy.colorado.edu/prometheus/archives/climate\\_change/001135the\\_assessors\\_assess.html](http://sciencepolicy.colorado.edu/prometheus/archives/climate_change/001135the_assessors_assess.html).

### *NOAA's New Media Policy: A Recipe for Conflict* by Roger Pielke, Jr.

The Department of Commerce, the parent agency of the National Oceanic and Atmospheric Administration (NOAA), has released a new media policy for its employees (thanks to an alert Prometheus reader for pointing us to it). The new policy was prepared in response to criticisms levied against the agency for its media policies related to agency scientists which some viewed as over-bearing and too politicized. Unfortunately, the new policy does little to address the challenges of public communication in highly politicized contexts, and probably makes things worse.

The new media policy can be found in PDF ([http://www.commerce.gov/opa/press/Secretary\\_Gutierrez/2007\\_Releases/March/29\\_DAO\\_219\\_1.pdf](http://www.commerce.gov/opa/press/Secretary_Gutierrez/2007_Releases/March/29_DAO_219_1.pdf)). It seeks to draw dark lines between different activities and information. For instance, the policy seeks to distinguish a "Fundamental Research Communication" from an "Official Communication." A FRC is defined as:

a Public Communication that relates to the Department's programs, policies, or operations and takes place or is prepared officially (i.e., under Section 6.03a. 1-4) and that deals with the products of basic or applied research in science or engineering, the results of which ordinarily are published and shared broadly within the scientific community, so long as the communication does not contain information that is... read more at: [http://sciencepolicy.colorado.edu/prometheus/archives/science\\_politics/001162noaas\\_new\\_media\\_pol.html](http://sciencepolicy.colorado.edu/prometheus/archives/science_politics/001162noaas_new_media_pol.html).

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## Center in the News

**L**isa Dilling's new book *Creating a Climate for Change* was referenced in the following media:

- February 25, 2007 Register-Guard article: Where we stand on global warming (<http://www.registerguard.com/news/2007/02/25/c1.cr.climatechange.0225.p1.php?section=cityregion>), by Rebecca Nolan
- February 22, 2007 Nature letter: Newspaper scare headlines can be counter-productive (<http://www.nature.com/nature/journal/v445/n7130/full/445818b.html>), by Mike Hulme
- February 18, 2007 Science Daily article: Americans Believe Global Warming Is Real, Want Action, But Not As A Priority (<http://www.sciencedaily.com/releases/2007/02/070218140838.htm>)



Kevin Vranes was quoted in a February 17, 2007 *World Magazine* article: Global warming's the hot topic, but one climate scientist exposes dissension in the expert ranks: "We wonder if we've oversold the science" (<http://www.worldmag.com/articles/12682>), by Becky Perry.

Kevin Vranes appeared on the January 27, 2007 edition of CNN's "In the Money" (<http://transcripts.cnn.com/TRANSCRIPTS/070127/cnnitm.01.html>) to discuss how corporations are joining the climate change debate.

Roger Pielke, Jr. was quoted in a February 22, 2007 *Globe Insider* article on politics and climate change: Take this global warming pop quiz ([http://www.theglobeandmail.com/servlet/Page/document/v5/content/subscribe?user\\_URL=http://www.theglobeandmail.com/%2Fservlet%2Fstory%2FLAC.20070222.COWENT22%2FTPStory%2FNational&ord=1172163640925&brand=theglobeandmail&force\\_login=true](http://www.theglobeandmail.com/servlet/Page/document/v5/content/subscribe?user_URL=http://www.theglobeandmail.com/%2Fservlet%2Fstory%2FLAC.20070222.COWENT22%2FTPStory%2FNational&ord=1172163640925&brand=theglobeandmail&force_login=true)), by Margaret Wentle

To view all Center In the News articles see: <http://sciencepolicy.colorado.edu/outreach/news.html>.

## S&amp;T Opportunities

**DISCCRS III Symposium**  
**September 10 - 17, 2007**  
**Hawai'i Island**

**D**ISCCRS (pronounced "discourse") targets recent



Ph.D. graduates to catalyze international, interdisciplinary understanding and collaborations across the natural and social sciences, humanities, mathematics, engineering and other disciplines related to climate change and its impacts. Funding from NSF supports symposium participant costs, the DISCCRS website and an electronic newsletter. Symposia are currently funded for 2007 and 2008. Recent Ph.D. graduates from all disciplines and countries are invited to join the DISCCRS network and apply to be a DISCCRS symposium scholar.

Thirty-six recent Ph.D. graduates will be competitively selected to present their research in both oral and poster format and participate in the week-long symposium. Four scholars will be invited to serve as mentors for the group, and Stanford Professor Stephen H. Schneider has recently assented to serving as one of the mentors. A representative from the

U.S. National Science Foundation will be invited to describe programs and funding opportunities. Strategies for collaborating across disciplines will be introduced and practiced in the context of developing an interdisciplinary research proposal. Techniques for communicating with non-specialist audiences will also be addressed.

**Eligibility:**

Ph.D. requirements completed April 1, 2004 - March 31, 2007 in any discipline related to climate change and impacts.

**Application Deadline:**

April 30, 2007

**Participant Costs:**

Funding is provided for symposium airfare, housing and meals.

For more information contact:

Susan Weiler, [weiler@whitman.edu](mailto:weiler@whitman.edu). See also the poster: <http://www.aslo.org/phd/discrposter.pdf>.

Supported by the U.S. National Science Foundation through grants to Whitman College (EAR-0105201, C.S. Weiler PI) and University of Oregon (EAR-0435719, R.B. Mitchell PI). Jointly sponsored by the following societies: AAG, AERE, AGU, AMS, ASLO, ESA, ESS-ISA.

## S&T Opportunities

### Debating Science

**D**ebating Science is a graduate education program that teaches the skills of ethical public discourse and their application to issues in science and technology, and explores the ethical, scientific, and social dimensions of climate change, biotechnology and nanotechnology. Debating Science is an intensive 4-day summer workshop in Missoula, Montana, followed by an online discussion course which provides travel support, board, and lodging for participants.



It is sponsored by the National Science Foundation and features keynote lectures by outstanding scholars in the fields of philosophy of technology, environmental economics, environmental philosophy and ethics, the policy history of global climate, biotechnology, and nanotechnology.

We are looking for graduate students who are inspired by their own research but who are also interested in exploring the social, political, and philosophical context of that work, and who are committed to sharing science with nonscientists in the genuine hope for a better world.

For more information and to apply, please go to [http://www.umt.edu/ethics/debating\\_science](http://www.umt.edu/ethics/debating_science).

## S&T Opportunities

### Ethics in Science and Environmental Politics

#### Ethics of Climate Change

#### CALL FOR ESSAYS

**M**ajor consequences of climate change are now predictable to a reasonable degree of scientific certainty. Many of these consequences will be experienced within the next 100 years - on time scales relevant to emergency preparedness, medical responses, infrastructure alteration, financial investments, treaty negotiations, etc. These changes will impact the globe, geographically, socially, politically and economically. Leaders of institutions concerned with law, business, medicine, science, sociology, politics and religion will face the brunt of these changes. In the face of these challenges, their actions must be honorable, moral and ethical. The observation that citizens in poor countries often choose practices that are more environmentally sound than their counterparts in rich countries is a moral and ethical conundrum.

Clearly, much more can be done at the level of the individual citizen. To stimulate discussion of these issues, Inter-Research Science Center is sponsoring seven essay contests. The authors of winning essays will receive US \$1000.00 and their articles will be published in Ethics in Science and Environmental Politics (ESEP) (<http://www.int-res.com/journals/esep/>). The ESEP issue in which these articles appear will be made available online as an Open Access document – anyone with access to the Internet will be able to read it. There is one contest in each of the following disciplines:

- Economics/Business
- Law
- Medicine
- Environmental sciences
- Engineering
- Philosophy/Religious studies
- Political Science

Essays within these broad subject areas should focus on climate change, and particularly on ethical issues. Please refer to the “White Paper on the Ethical Dimensions of Climate Change” (<http://rockethics.psu.edu/climate/whitepaper-intro.htm>) for background and guidance. These contests are open to graduate students (post Bachelors) at any certified university or college. Proof of student status (e.g. photocopy of a valid student identification card; letter from thesis advisor) must accompany submitted manuscripts.

Essays can be a maximum of 6000 words (excluding references and figure legends) and must include the corresponding author’s name, academic institution, street address, telephone number and e-mail address. Multiple authors – who would split the prize evenly - are permitted. All essays must be submitted as digital PDF or WORD files, and should be prepared following the guidelines detailed at: <http://www.int-res.com/journals/esep/guidelines-for-esep-authors/>. Indicate clearly under which discipline your essay falls. Essays must be submitted, via e-mail to [esep-submissions@int-res.com](mailto:esep-submissions@int-res.com) - by 0000 hrs GMT on 3 September 2007. All essays will be reviewed by a panel of experts. The winners will be notified by 30 November 2007. Runner-up essays that pass the peer review process will also be published in ESEP.



## About Us

Ogmios is the newsletter of the Center for Science and Technology Policy Research which is published four times a year. The Center is within the Cooperative Institute for Research in Environmental Sciences (CIRES) at the University of Colorado-Boulder. The mission of CIRES, which was established in 1967, is to act as a national resource for multidisciplinary research and education in the environmental sciences. CIRES is jointly sponsored by the University of Colorado-Boulder and the National Oceanic and Atmospheric Administration.

### On-Line Version

(<http://sciencepolicy.colorado.edu/ogmios/>)

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