UCAR Trustee Candidate

Rosina M. Bierbaum

The Member’s Nominating Committee is pleased to present Dr. Rosina M. Bierbaum from the University of Michigan as a candidate to the UCAR Board of Trustees. Dr. Bierbaum is Dean of the School of Natural Resources and Environment (SNRE) at the University of Michigan. Prior to joining SNRE, Dr. Bierbaum held a variety of positions in the Congressional Office of Technology Assessment and the White House Office of Science and Technology Policy (OSTP), culminating in her confirmation by the US Senate as OSTP Associate Director for Environment in 1998 and her service as acting Director of OSTP from January-October 2001. During her tenure at the White House, she was responsible for providing scientific input and guidance on numerous environmental issues and for oversight and coordination of the $5 billion Federal portfolio of environment and natural resources research and development. Dr. Bierbaum has testified before both House and Senate Committees on environmental issues and lectured and written widely on research needs to better manage natural resources, the effects of multiple stresses on ecosystems, energy technology, and the science and impacts of global climate change. She has spent her entire career at the intersection of science, policymaking, and society, with particular contributions in the development and implementation of large-scale scientific assessments to support informed decision-making, and would thus bring a unique and valuable perspective to the Board of Trustees.

PERSONAL STATEMENT

The opportunity to serve on the UCAR Board of Trustees is indeed an honor. The real and potential value of university consortia is as great as the need for such approaches is urgent. I look forward to investing my experience and expertise in stewarding and growing UCAR’s capacities.

My experience and continued presence in the dialogue on global change are among the most valuable contributions I can make to the UCAR Board of Trustees. I led several of the U.S. delegations to the IPCC (Intergovernmental Panel on Climate Change) as well as a U.S./China Summit on Climate Science. Earlier, between 1980 and 1993, I participated in nine different Congressional assessments of the consequences of potential legislation and regulation to address emerging environmental problems, including climate change. The two culminating reports—“Changing by Degrees: Steps to Reduce Greenhouse Gases,” and “Preparing for an Uncertain Climate”—provided the Congress with an analysis of the potential for mitigating and adapting to climate change. The latter report became part of the U.S. submission on Adaptation in 1995 and 1997 under the Framework Convention on Climate Change. As director of the Environment Division of the Office of Science and Technology Policy (OSTP) in the Executive Office of the President, I provided scientific input and guidance across the full range of environmental issues including ecosystem management, air and water quality, environmental monitoring, endocrine disruptors, energy research, climate change, and natural hazards. My OSTP office coordinated the Federal government’s $5 billion investment in environmental R&D.

From my perspective, there are 4 areas that merit immediate and greater attention in the environmental arena, and UCAR is poised to make progress on each of these:
Assessment. We need to take stock of the state of science at a point in time, evaluate what is known, what is not known, what is knowable over what time scales, and what is most important to know. We must be able to help decisionmakers make wise choices today, even as information continues to accrue and develop. Assessment must be iterative.

Scale. Environmental problems are local, regional, or global, and we must apply science at the appropriate scale, bringing advanced technology such as remote sensing into play to both identify and ameliorate them.

Extremes. We need to focus not just on slow, gradual changes in parameters such as CO2 or temperature, but also to evaluate extremes. Often it is phenomena at the tails of probability distributions that cause socio-economic pain—droughts, floods, storm surges, viral and other biological population explosions.

Consequences. We need to more clearly characterize the human impact of environmental change. We must help the public understand the full implications on things that people care about—changes in food, fiber, lifestyle—that is, the “pain” or “gain” to society of environmental change. The cumulative effect of multiple environmental stresses all happening at the same time in the same place must be understood, evaluated, and explained.

Developing the capacity to provide society with short-term guidance, within a long-term, flexible science infrastructure, is indeed an urgent need. Everything we do in the near-term either enables—or precludes—some future action.

My twenty year adventure in advising the legislative and executive branches of the US Government, culminating in serving as the acting Director of the Office of Science and Technology Policy, taught me much of value that I can bring to UCAR. Now, I am working to train the next generation of environmental leaders and have, at long last, returned to the University. My goal is to prepare students to understand and participate in the policymaking process even as they develop into cutting-edge scientists. In my new capacity, I am serving on many Boards—the overall Advisory Board for the AAAS, the Federation of American Scientists, the U.S. Scientific Expert on the Permanent Court of Arbitration in Hague, the Energy and Environment Study Institute, and the Board on Atmospheric Sciences and Climate of the National Academy of Sciences. I am committed to remaining deeply involved in the science/policy nexus.

BIOGRAPHICAL INFORMATION

Title/Position: Professor of Natural Resources and Environmental Policy
Dean, School of Natural Resources and Environment

Institution: University of Michigan

Education:
1974 B.A., English, Boston College
1974 B.S., Biology, Boston College
1985 Ph.D., Ecology and Evolution, State University of New York, Stony Brook

Appointments:
2001-present Dean and Professor, School of Natural Resources and Environment,
University of Michigan, Ann Arbor, MI.
2001-2001 Acting Director, Office of Science and Technology Policy, Executive Office of the President, Washington, DC.
1998-2001 Associate Director for Environment, Office of Science and Technology Policy, Executive Office of the President, Washington, DC.
1997-1998 Acting Associate Director for Environment, Office of Science and Technology Policy, Executive Office of the President, Washington, DC.
1996-1998 Assistant Director for Environment, Office of Science and Technology Policy, Executive Office of the President, Washington, DC.
1993-1996 Senior Policy Analyst, Environment Division, Office of Science and Technology Policy, Executive Office of the President, Washington, DC.
1982-1986 Assistant Project Director, Assessment on Transported Air Pollutants, Oceans and Environment, Office of Technology Assessment, U.S. Congress, Washington, DC.

Selected Bibliography:


Bierbaum, R. The presidency and environmental policy in the 21st century. in The Presidency and the Environment: the 20th Century and Beyond (Wallace Stegner Center, Quinney College of Law, University of Utah Press, in press).


Lane, N. & Bierbaum, R. Recent advances in the science of climate change. Natural Resources and Environment 15 3, 147-151, 199-202 (2001).


Bierbaum, R.M. Preface: Regional Assessment of Climate Change and Policy Implications *Climate Research Special Issue* 11 1, 1-3 (1998).


