

THE NATIONAL ACADEMIES

Advisers to the Nation on Science, Engineering, and Medicine

AMERICA'S CLIMATE CHOICES

PANEL ON INFORMING EFFECTIVE DECISIONS AND ACTIONS RELATED TO CLIMATE CHANGE

Statement of Task

The Panel on Informing Effective Decisions and Actions Related to Climate Change will describe and assess different activities, products, strategies, and tools for informing decision makers about climate change and helping them plan and execute effective, integrated responses. The panel will describe the different types of climate change-related decisions and actions being made at various levels and in different sectors and regions, develop a framework for analyzing and informing these actions and decisions, and evaluate the activities, products, and tools that could help ensure these actions and decisions are informed by the best available technical knowledge. The tools, products, and activities considered by the panel will include, but are not necessarily limited to, observing systems, climate models, monitoring and early warning systems, assessments, integrated assessment models, outreach activities, and communication networks between information providers and users. The panel will also discuss steps to better educate and train future generations of scientists, decision makers, and citizens to meet the challenges associated with climate change.

Ultimately, the goal of this panel is to answer the fourth question in the Statement of Task for the study (“What can be done to inform effective decisions and actions related to climate change?”). This question will be expanded over the course of the study to include more specific sub-questions such as¹:

- What climate-relevant information and other support do different kinds of decision makers need to respond effectively to climate change (including mitigation and adaptation), and what approaches and tools are most effective at providing this information and support?
- What roles can federal, state, and local governments and other groups (e.g, the academic community) play in providing effective “climate services”—the timely production and delivery of information, data, and knowledge to decision makers affected by climate?
- What information and tools (e.g., monitoring, metrics, integrated assessment models, etc.) do we need to evaluate the progress of different responses to climate change?
- How can decisions and actions related to climate change be made more flexible and responsive to changing conditions and new information?
- What can current efforts and past experiences (both failures and successes) teach us about responding effectively to climate change?

The panel will be challenged to produce a report that is broad and authoritative, yet concise and useful to decision makers. The costs, benefits, limitations, tradeoffs, and uncertainties associated

¹ These sub-questions are only examples of the types of questions to be addressed by the panel, to indicate the level of specificity intended. Some of these illustrative questions may be revised or dropped, and other questions may be added, at the discretion of the panel and the Committee on America's Climate Choices.

with different options and strategies should be assessed qualitatively and, to the extent practicable, quantitatively, using the scenarios of future climate change and vulnerability developed in coordination with the Committee on America's Climate Choices and the other study panels. The panel should also provide policy-relevant (but not policy-prescriptive) input to the committee on the following overarching questions:

- What short-term actions can be taken to better inform decisions and actions related to climate change?
- What promising long-term strategies, investments, and opportunities could be pursued to better inform decisions and actions related to climate change?
- What are the major scientific and technological advances (e.g., new observations, improved models, research programs, etc.) needed to better inform decisions and actions related to climate change?
- What are the major impediments (e.g., practical, institutional, economic, ethical, intergenerational, etc.) to effectively informing decisions and actions related to climate change, and what can be done to overcome these impediments?
- What can be done to more effectively inform decisions and actions related to climate change at different levels (e.g., local, state, regional, national, and in collaboration with the international community) and in different sectors (e.g., nongovernmental organizations, the business community, the research and academic communities, individuals and households, etc.)?

Panel Membership:

Peter H. Raven (*Chair*), Missouri Botanical Garden

Diana Liverman (*Vice-Chair*), University of Oxford and University of Arizona

Daniel Barstow, TERC

Rosina M. Bierbaum, University of Michigan

Daniel W. Bromley, University of Wisconsin- Madison

Anthony Leiserowitz, Yale University

Robert J. Lempert, RAND Corporation

Jim Lopez, King County, Washington

Shaun McGrath, Western Governors' Association

Edward L. Miles, University of Washington

Berrien Moore III, Climate Central

V. Ramaswamy, Geophysical Fluid Dynamics Laboratory

Richard Richels, Electric Power Research Institute

Kathleen Tierney, University of Colorado

Chris Walker, The Climate Group

Shari T. Wilson, Maryland Department of the Environment

Martha McConell (*Study Director*), National Research Council