



# Informing an Effective Response to Climate Change

Laurie Geller, Diana Liverman, Peter Raven

**Statement of Task:** This report, part of the *America's Climate Choices* suite of studies requested by Congress, describes and evaluates different activities, products, strategies, and tools for informing decision makers about climate change and helping them plan and execute effective, integrated responses.

**Committee Members:** Diana Liverman (Co-Chair), Peter Raven (Co-Chair), Daniel Barstow, Rosina Beirbaum, Daniel Bromley, Anthony Leiserowitz, Robert Lempert, Jim Lopez, Edward Miles, Berrien Moore III, Mark Newton, Venkatachalam Ramaswamy, Richard Richels, Douglas Scott, Kathleen Tierney, Chris Walker, Shari Wilson.

## Who is Making Decisions about Climate Change?

	National	Regional	Local	International
<b>Government</b>	Federal agencies, Executive, Congress, Judiciary	Tribal and State governments, regional offices of Federal agencies, interstate networks (e.g., RGGI)	City, county and other local government	Intergovernmental organizations (e.g., World Bank, UNFCCC, ICLEI)
<b>Private Sector</b>	Corporate HQs, national business networks	Regional corporate offices, companies and business associations	Local businesses and associations	Multinational corporations, international business networks (e.g., WBCSD)
<b>Non-profit organizations</b>	Environmental and other NGOs	Regional offices of NGOs, regional organizations	Local NGOs	International environmental and humanitarian organizations and networks (e.g., Oxfam)
<b>Citizens</b>	Voters, citizen and consumer networks	Voters, citizen networks	Individuals as voters, consumers, agents	International citizens networks



**Federal decisions** (e.g., whether to participate in international climate change agreements, whether to regulate emissions, funding priorities for R&D, how to adapt to climate change on federal land, the best way to communicate climate change to the public)



**State, tribal, and local decisions** (e.g., how to incorporate climate change into land-use planning, how to encourage citizens to reduce their emissions, how to amend building code to help reduce emissions, whether or not to invest in public transportation, whether or not to encourage low emission energy production).



**Private sector decisions** (e.g., how to reduce emissions from operations and supply chains, whether to participate in regional and global carbon markets, how to develop good information about carbon in products, whether to engage in sustainable practices, whether to insure against climate risks).



**Individual decisions** (e.g., how seriously to judge the risks of climate change, how to prepare by adapting lifestyle choices, what actions to take to reduce emissions in household energy, travel, and purchase of goods, should investments be with companies with climate responsible behaviors).

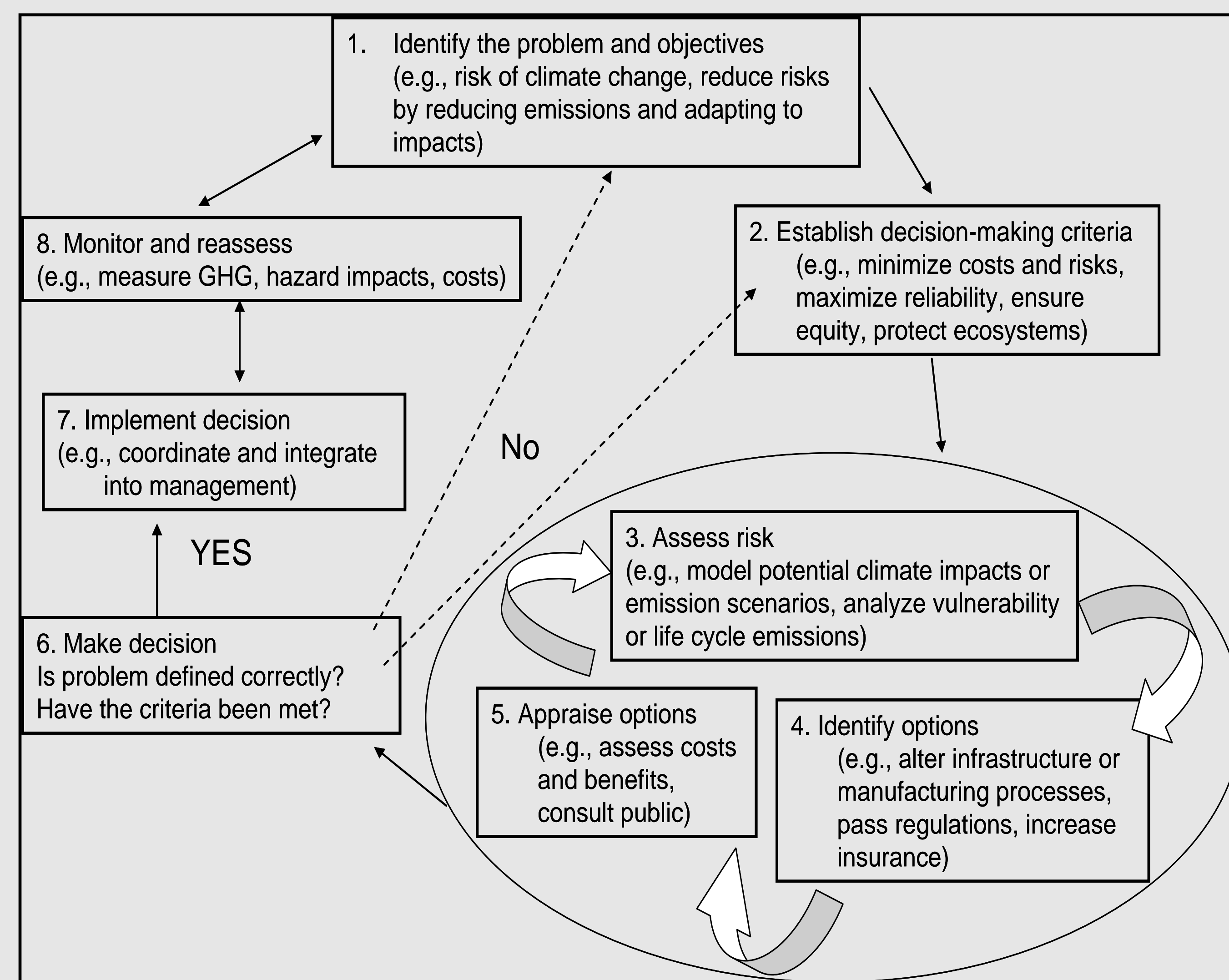
## Recommendations

1. Establish clear federal leadership, responsibilities, and coordination for climate related decisions and services. Establish information and reporting systems that allow for regular evaluation and assessment of the effectiveness of both government and non-governmental responses to climate change.

2. Take account of non-federal decisions and actions.

- Assess and learn from approaches to climate related decision making used at non-federal government levels and in the private sector.
- Enhance non-federal activities that have proven effective in reducing greenhouse gas emissions.
- Ensure that proposed federal policies do not unnecessarily preempt effective measures that have already been taken at the local level.

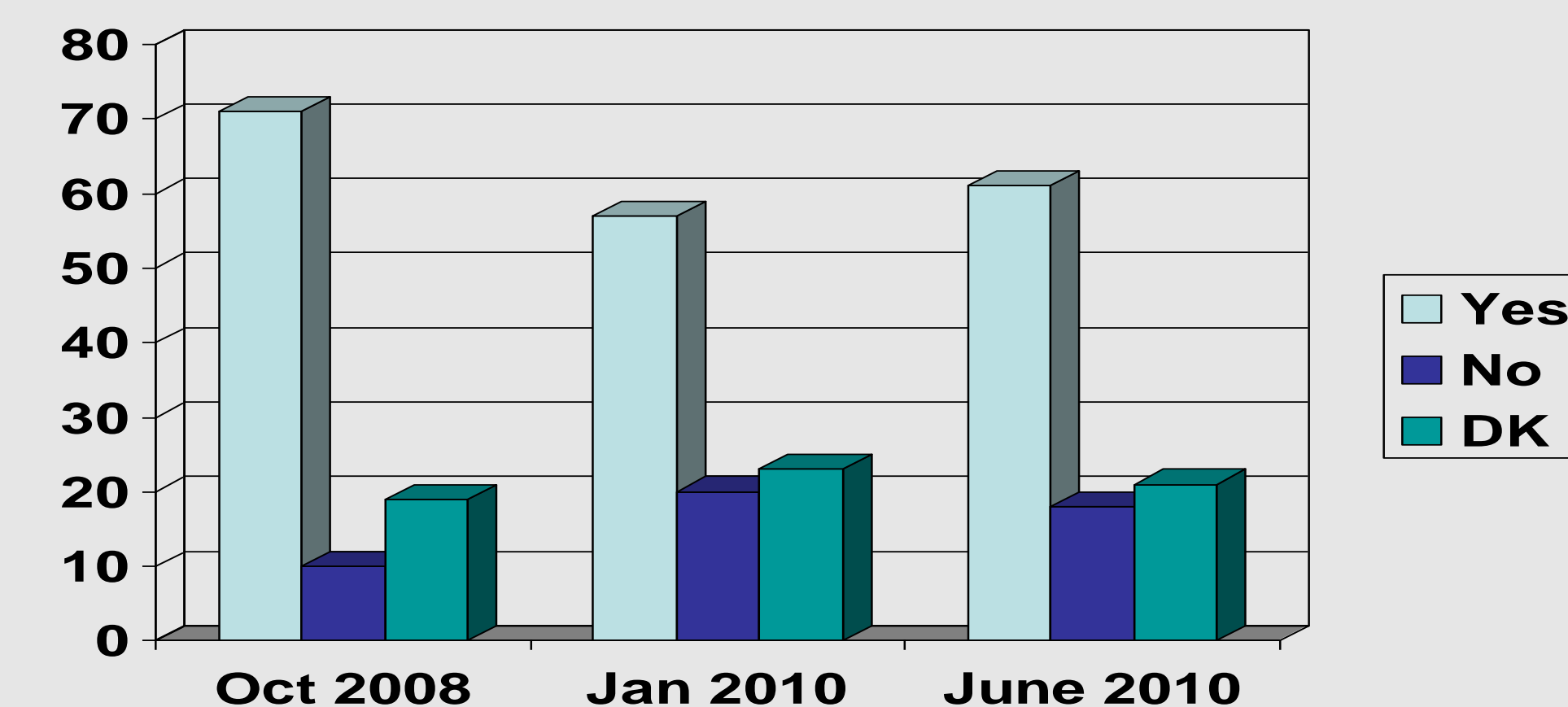
3. Decision makers should implement an iterative risk management strategy to manage climate decisions, wherein decisions and policies can be revised in light of new information, experience, and stakeholder input



4. Review and revise federal risk insurance programs to take account of long-term fiscal and coverage implications of climate change. The panel endorses the steps that have been taken (e.g., by the SEC) to facilitate transparency and coordination of financial disclosure requirements for climate change risks.

5. The federal government should support research, development and diffusion of decision support tools, and include clear guidance as to their uses and limitations for different types and scales of decision making about climate change.

## American attitudes toward climate change: Is global warming happening?



<http://environment.yale.edu/climate/files/ClimateBeliefsJune2010.pdf>

6. The federal government should support the collection and analysis of international information

- climate observations, model forecasts, and projections
- the state and trends in biophysical and socioeconomic systems
- research on international climate policies, response options and their effectiveness
- climate impacts and policies in other countries of relevance to U.S. decision makers

7. The nation needs to establish a coordinated system of climate services that:

- involves multiple agencies and regional expertise
- is responsive to user needs
- has rigorous scientific underpinnings
- performs operational activities (timely delivery of relevant information and assessments)
- can be used for ongoing evaluation of climate decisions
- has an easily accessible information portal that facilitates coordination of data among agencies and a dialogue between information users and providers

8. Establish a federally supported system for greenhouse gas monitoring, reporting, verification, and management. The system should include the establishment of a unified emission accounting protocol and registry.

9. Promote credible, easily understood standards and labels for energy efficiency and greenhouse gas information, to build public trust, enable effective consumer choice, identify best practices, and adapt to new science and emission reduction goals.

10. Establish a national task force that includes formal and informal educators; government agencies, policymakers, business leaders, and scientists, among others, to set national goal and objectives, and to develop a coordinated strategy to improve climate change education and communication.

The *America's Climate Choices* reports are available from National Academy Press (<http://www.nap.edu/>)

